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Baltimore. Mayor

THE

MAYOR'S MESSAGE

AND

Reports of the City Officers,

MADE TO THE

CITY COUNCIL OF BALTIMORE,

FOR THE YEAR 1877.

BALTIMORE:
PRINTED BY JOHN COX,
Corner Pratt Street and Spear's Wharf.

1878.

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Mayor's Message.

MAYOR'S OFFICE,

Baltimore, 21st January, 1878.

To the Honorable, the Members of the

First and Second Branches of the City Council.

GENTLEMEN:

The change made in the fiscal year of the city, and the consequent delay in obtaining from the various departments of the City Government the data essential to such an exhibit of the general condition of the City, with its receipts and expenditures, as the Mayor is required by the charter to make to the City Councils, has, as you are aware, delayed me in laying this communication before you.

It occasions me no little regret at feeling called upon, in this my first annual message to the City Councils, to chronicle a continuance of that prostration in trade and general depression in all industrial branches, under which the whole country has unfortunately suffered for some four or five years past, and which has resulted in great privations and sufferings among large numbers of our population, especially such as depend upon the labor of their hands to support physical vitality.

So wonderful has been the shrinkage in nearly every description of property, real and personal, throughout the country,

and so materially have the incomes of people generally been curtailed, and unfortunately too without any corresponding decrease in the necessary cost of living, as to create wide spread apprehensions of a condition of general bankruptcy throughout the country, unless a speedy change for the better takes place. It is true that the opinion seems to be on the increase that the coming season may bring with it more cheering prospects for the business community, and the belief is becoming quite general that we have struggled through the gloomiest period of the panic, but when we look at the vast depreciation of investments in all works of Internal Improvement, the great lessening of their earnings, and the consequences resulting therefrom to the stockholders, municipalities and institutions throughout the country, we still have abundant ground for apprehension for the future.

When the existing condition of real estate, and its fearful depreciation in value in nearly all of our large cities, is considered and contrasted with the astounding rapidity with which their indebtedness has accumulated, it really looks as though they were making rapid strides on the road to general bankruptcy.

Even our own city, as prosperous as we all flatter ourselves is its condition, has kept good pace in the augmentation of its indebtedness with the most progressive of its neighbors. We ought not to ignore the fact that, whilst it is true, as claimed by that portion of our public spirited citizens who are over anxious to embellish the city by liberal expenditures of the public funds, that the bonds of our city are in flattering demand, the homestead and property of every man, woman and child in the community is mortgaged for their redemption.

That there can be no permanent improvement in the value of property until confidence is restored, nor any general re-

sumption of labor among our mechanics and workingmen until those having means to invest in building have reliable assurances that such investments will not be absorbed by the collection of taxes, are conceded and unquestioned facts. We are carrying quite a burdensome floating debt. Let us try and liquidate it by a judicious economy in our expenditures, and above all, let care be taken to make no new obligations for any purpose whatever, without first devising the means of liquidating them.

ILLEGAL EXPENDITURES.

One of the very worst features, among very many that have invaded departments of the City Government, and which are attributable to the restless extravagance of the times, is the utter disregard frequently manifested by those entrusted with the disbursement of public money, of the purposes for which it was entrusted to their keeping, and of the express limitations and restrictions intended to govern them in its uses, which not unfrequently results at the end of the year, as was the case very recently, in the necessity of a "deficiency bill" to pay debts contracted not only without authority, but in direct violation of a city ordinance. I would earnestly recommend to your Honorable Bodies the passage of such an additional ordinance as will, in the future at least, protect the city from all such irregularities, and effectually guard against the expenditure of a single dollar of the public money in excess of what may have been duly appropriated. The constitutional safeguards provided by the convention of 1867, which were intended to arrest the extravagant spirit found at that time to be so largely on the increase, prohibit even the Mayor and City Council from creating any new debt, without the consent of the voters; but like many other enactments intended to pro-

tect the public, they have failed in their intended purpose. The large number of names on the books of registration, greatly in excess of the actual number of legal voters in the city, adds greatly to the facilities of securing an endorsement by the voters of any money appropriation bill in the interest of liberal and experienced manipulators of the ballot box. The necessity for an entire new registration of voters for Baltimore city cannot be too strongly recommended.

FIRE DEPARTMENT.

The expenses of the Fire Department seem to demand a careful consideration, as to the best mode of preventing their increase. With the vast expenditure now being incurred in securing an abundant supply of water for the purposes of the city, I am very clearly of the opinion that the supply can be so utilized that the use of steam engines can be dispensed with throughout a large section of the city, by placing abundant supplies of hose on light carriages, of less dimensions than is used by the steam engines, and providing suitable attachments, in sufficient numbers for any emergency, on the fire plugs. Had such a provision existed on the occasion of the fire at Brown's drug store, on Sharp street, quite a number of buildings that were burned could have been saved. In making these suggestions I have no purpose of derogating from the well earned fame of our present firemen, some of whom have devoted the best portion of their lives to the service and deserve the gratitude of their fellow citizens.

THE POLICE SYSTEM.

The expenses of our present Police system demand the earnest attention of the City Council, with the view of arriving at some practicable mode of reducing them, as well as

to the proper system of auditing the accounts of the Police Board. In this connection I beg to invite your special attention to the following extract from the report of the City Comptroller (the whole of which is submitted herewith) which treats of the whole question of the propriety of putting their accounts and vouchers on the same footing as all other departments of the City Government, in a comprehensive and unanswerable manner.

"The city provides the means for carrying out the purposes of the Police Department for the City of Baltimore, the sum of $683,000, having been paid by the city on that account from October 31st, 1876, to January 1st, 1878, and no sound reason can be given for exempting that department from the monetary investigations and responsibilities of the departments of the City Government. The departments of the city require duplicate bills to be rendered, one of which must be retained by them, and the other sent to the City Comptroller accompanied with a warrant on that officer for the payment thereof. They also have duplicate pay rolls of their officers made out, one of which is sent to the Comptroller with a warrant on him for the amount, and the other is retained in their respective departments. If this regulation is wise and proper for the several departments and commissions of the City Government, I can perceive no reason why it is not sound when applied to the monetary affairs of the Department of Police. In fact the statute of 1874, chapter 146, section 816, says: "It shall be the duty of the Comptroller of the City of Baltimore to examine all bills and accounts presented by said Board of Police Commissioners, and the vouchers therefor." This part of the Act of Assembly means something, but its application by the Police Board renders it of no avail, because neither bills, accounts, nor vouchers have at any time

been "*presented*" by the Commissioners to the City Comptroller for examination. They draw their warrants in bulk every two weeks on the Comptroller of the City to pay their bills, and there is no ordinance of the city which requires the Comptroller to withhold payment of the warrants unless the bills and pay rolls upon which such warrants are based should be presented to him for examination. There is nothing, in my judgment, in the statute organizing the Department of Police, inconsistent with this system of checks and responsibilities, if applied to that department, and it is not at all likely that the adoption of an ordinance or resolution by the Mayor and City Council in that connection, would be unfavorably viewed by the Commissioners of Police. Such a law would not certainly interfere with any legal right they now possess under the laws of the State."

There is, in my opinion, and I have given the subject no little consideration, a very grave error existing in supposing that the efficiency of a Police force depends upon its numerical strength. We have very recently, and even in our midst, discovered that the actual personal presence of a policeman is no protection against ruffianism. The power of the police and its prestige, as conservators of the peace, depend altogether upon the intelligence and energy with which violators of the law are hunted down after the offence has been perpetrated, and the holding under constant and strict surveillance all persons whose character and general deportment justly subject them to that kind of scrutiny. I do not approve of reducing the per diem of the existing force, whose compensation was a matter of contract at the time they became members of it, but I am very clearly of the opinion that the maximum of the force ought to be reduced to four hundred men, to take effect as rapidly as vacancies occur in their number either by

death, resignation or from any other cause. When the number shall have been reduced below four hundred, the question of compensation to new recruits is a fair subject for consideration. Another good reason for not reducing the pay of the present members of the force is to be found in the fact that quite a number of them have devoted the very prime of their lives to its service, and have acted with noted fidelity to their trusts, as has been recognized on repeated occasions; and while efficient as policemen, they are to a great extent disqualified from resuming their former trades.

SALARIES OF EMPLOYEES.

One of the demoralizing results of municipal looseness and extravagance to which allusion has been made in this communication, is the practice—which had its origin, I believe, since the adoption of the Constitution of 1867—which permitted salaries of employees to be regulated by departments of the City Government under which their places are held, instead of by the Mayor and City Council. By this means it not unfrequently happens that compensation is awarded out of all proportion to the services rendered and the amount of intelligence required, and greatly in excess of what is demanded and accepted for similar services outside of municipal circles; and this is done too without even the attention of the Mayor and City Council being drawn to the subject.

The compensation of all city employees ought to be proportioned to the nature of the duties involved and the service to be performed, and in every case ought to be established by the Mayor and City Council.

CITY COLLECTOR'S DEPARTMENT.

In this connection I deem it proper to call the attention of the City Council to the expediency of curtailing the expenses

of the office of Collector of Taxes, but more especially to the emoluments of that officer himself, which, in my opinion, are excessive in amount and unjust to the tax payers of the city, taking into consideration the nature of the services rendered.

By a city ordinance his salary is fixed at two thousand dollars per annum. But in addition to that amount he is permitted to retain for his own use a sum approximating to some five or six thousand dollars, which is levied upon the tax bills as a commission for collecting the State tax, every dollar of which is collected by a clerical force which also draws its entire compensation from the City Treasury.

This is assuredly all wrong, and it must have escaped the notice of former Councils.

The duties of the Collector are entirely of a clerical nature, and simply require that he shall be a practical book-keeper and accountant, and that he shall have the mental and physical vigor to enable him to keep the work from getting in arrears. They are by no means of a nature involving the same amount of intelligent research and application as attach to the office of Comptroller, whose compensation is fixed at two thousand five hundred dollars per annum, and of clerks whose compensation is far less than that of the Comptroller.

Entertaining these views, and for the reasons stated, I respectfully recommend to the City Council that the several ordinances relating to the collection of taxes be amended, so as to fix the Collector's compensation at two thousand five hundred dollars per annum, and that he be prohibited from receiving or retaining any other fees or perquisites whatever. I also recommend that his official bond be reduced to fifty thousand dollars, instead of seventy-five thousand dollars, as now fixed, and that he be authorized to appoint, with the power of removing, two Deputy Collectors, instead of one as

at present, to be designated as first and second Deputy Collectors. The first Deputy to have charge of collecting the State taxes, and to make daily deposits of the same in bank, to be paid a compensation of two thousand dollars per annum, and to give bond to the State in the sum of thirty thousand dollars; the second Deputy Collector to have charge of the taxes in arrear, and to be paid a salary of fifteen hundred dollars per annum; both of the Deputy Collectors to perform their duties under the general supervision of the Collector of Taxes.

It may be alleged, in objection to the change, that the compensation proposed is not adequate to the amount of bond re-required of those officers, but this is fully met by the recollection that there can be no considerable amount of risk involved if they give the proper attention to their respective duties. If they do this the risk must be small, and if they fail to give that attention it is no more than right that they should be held responsible.

I have deferred going into the question of bailiff's fees, because I understand that matter is now under consideration by a committee of the City Council, and because questions of law are involved in it which my sudden attack of feebleness precluded me from properly examining at present.

The costs of advertising sales of property under distraint for taxes is very large, but according to decisions by some of our courts, legislative action is required to enable the Collector to curtail them. The present understanding of such decisions is that the entire description of each piece of property by metes and bounds must be embraced in the advertisement, whereas it is believed it would answer every intended purpose just as well if the owner's name, street, number of the house or lot, and the amount of tax, were given, which would not occupy one-fourth of the space of the present form of advertising, nor cost one-fourth of the amount.

HEALTH DEPARTMENT.

The duties imposed upon the Department of Health by the City Code are very varied and somewhat anomalous in their nature, and I believe that the public interests would be better served and the duties better performed by the creation of a new department, and a re-distribution of the duties.

It can readily be seen that the practical ability required for the direction and superintendence of the force engaged in keeping streets, market houses, sewers, &c., in a salubrious condition, is very different from the scientific information applicable to the prevention and repression of contagious or infectious diseases. With this view I have prepared, and will submit to the consideration and action of the City Councils, two ordinances, which I think will accomplish the desired results.

THE FLOATING DEBT.

I respectfully invite your attention to the annual reports of the Register and Comptroller, by which it will appear that the present floating debt of the City amounts to the sum of $1,342,-721 19, being an increase since 31st October, 1876, of $239,-004 70, which, as I understand the report of the Register, is a more favorable showing—being made up to December, 1877—than if the accounts had been closed on 31st October, 1877, because of the large collections made in November and December last.

RAILROADS.

There is no encouragement for any expectation of speedy returns from many of the City's investments in internal improvements. There are very nice questions now pending regarding the Western Maryland Railroad, in which the City

has more than three millions of dollars at issue, which may before long require the Finance Commissioners to ask special instructions from your Honorable Bodies.

The Baltimore and Ohio Railroad Company has met all its obligations to the City, for the past year, with punctuality; but, in view of the great depression in trade of all kinds, and the ruinous competition between competing lines for the busi- of the Great West, which have interfered very materially with its earnings, a general feeling seems to pervade the business community favorable to the State's authorities making a liberal adjustment of all matters at issue with that company, which cannot be viewed in any light but as Baltimore's great artery of trade.

I beg to call the earnest attention of the City Councils to the importance of taking some immediate steps for improving the communications between the eastern and western sections of the city, at the crossings over Jones' Falls, which are now almost entirely cut off between Hillen and Eager streets, on account of the danger from passing locomotives. I am having plans prepared by the City Commissioner for the widening and regrading of Madison street, from Forrest to North street, so as to permit the cars to pass under instead of on the street grade, which will be in readiness to be submitted in a few days.

I am also having plans and estimates made for abating the nuisance so long existing from the exposure of the mud in the bed of Jones' Falls in the warm months. This has long been a matter of much complaint, on account of the malaria arising therefrom, and I propose to have the water emptying through this channel after rainfalls diverted partly by a tunnel and partly by open cut from Charles street bridge to Eager street.

STREET PAVING.

I propose making some suggestions, at an early day, in relation to the paving of streets and repairs of the same, the adoption of which would be likely to produce beneficial results in the character of the work and the cost of doing it. I must be content for the present with recommending, in the view of securing paving stone of the proper kind and of uniform size, that the City Commissioner be authorized, with the consent of the Mayor, to contract for the delivery, at such times and places as he may designate, of such quantities of Belgian blocks and cobble stones as may be required, the Belgian blocks to be of such size as the City Commissioner may direct, and the cobble stones to be not less than sixteen square inches on the upper side and six inches deep, and that the City Commissioner, with the consent of the Mayor, be authorized to have such stones laid, when used for repairs of streets, either by day's labor or by contract.

CITY SURVEYOR.

As the question of "platting the City" for the uses of the Tax Department is, as I understand, now under consideration by a committee of the City Council, it seems fit that I should call your attention to the report of the Commissioners for Opening Streets, which shows that the fees of the Surveyor, for their department alone, amounted to eight thousand three hundred and ninety-six dollars and sixty-two cents ($8,396 62), and to suggest whether the public interests could not be better served by a properly arranged Surveyor's Department, with authority to the Mayor and City Council to appoint (in addition to a permanent principal Surveyor to be nominated by the Mayor and confirmed by the City Council), such assistants as any exigency may require, providing fixed compensation for the chief and

assistants, and requiring that their whole time should be devoted to the service of the City, and that they should at all times, unless employed elsewhere on public business, be in attendance at the office during office hours. In this way the entire city could be thoroughly and properly mapped at a reasonable cost.

CITY LAMPS.

The cost of lighting up the City lamps (in addition to the cost of the gas consumed), and of keeping them in repair, is now as follows:

Pay of 4 Superintendents, at $520 each, per annum	$2,080 00
Pay of 97 Lamplighters, at $8.00 each, per week,	40,352 00
Salaries of 4 contractors for repairs	2,328 00
	$44,760 00

It seems to me that the ordinary lamplighter is somewhat on a par with the ancient city watchman. He must yield to the advance of the times, which has swept away so many time-honored but obsolete things, and the service he performs could be much more rapidly done, and in a more economical way, by the application of electricity, or some other modern improvement.

CALVERT STREET BRIDGE.

I have instructed the City Commissioner to defer the commencement of the work on the abutments for the iron bridge ordered by the late City Council to be erected over Jones' Falls on the line of Calvert street, for the reason that their erection might interfere with the ability of the owners of the fee simple of the old bed of the stream, to conform to the legal requirements which will be required of them in order to abate the nuisance heretofore mentioned.

SEWERS.

I beg to call your attention to the large sums already expended, as well as the balances of appropriations to be expended on sewers, and to suggest if it would not be a simple act of prudence to have an extended plan of surveys prepared before any more money is spent for such purposes, as it is already demonstrated that many of the sewers already constructed are rapidly becoming too small for the purposes intended.

THE M'DONOGH FUND.

Demands have been made upon the City within the last few days of such a nature as will doubtless require a special communication to your Honorable Bodies on the subject. In the mean time I have to refer you to the annual report of the Board of Trustees.

THE PARK FUND.

Not having been able to confer with the Park Commissioners, or even to be present at a single meeting of the Board, I am not sufficiently advised of the present condition of the fund to speak (of my own knowledge) very intelligently on the subject, but from a brief interview with one of the Board, I am of the opinion that the City Council will either have to make a levy upon the tax payers to meet the interest on the Park debt, to abandon all improvements in the Parks, or to take decided measures to compel the City Passenger Railway Company to comply with the conditions of the grant under which it occupies the streets of the city, and refund that portion of the Park Tax which was, in my opinion, illegally donated to them by the Mayor and City Council.

In order to enable your Honorably Bodies to deal intelligently with the subject, I take the liberty of inviting your attention

to some of the circumstances under which the grant in question was obtained, which occurred at a gloomy period in the history of our city (doubtlessly well remembered by most of you), when lawlessness reigned supreme, and the great mass of our citizens had no voice whatever in the administration of the municipal government. At that time a general desire was felt by our people to have some means of passenger transportation instituted as a substitute for the "omnibus" system then in vogue, and a number of our most prominent and enterprising citizens asked the privilege of laying a horse railroad through the streets of the entire city, conditioned upon charging a fare not to exceed four cents from any section of the city to another, and without any additional charge for transfer from one route to another. The parties making the application to the City Council embraced among them some of the most intelligent and largely experienced experts in railroad affairs in the city, having abundant means for the purpose, and were as widely known and respected as any others in the community. Instead, however, of securing the advantages of such an offer—which would have been of incalculable benefit to the great body of our population whose engagements compel them to go back and forth to and from each meal and at fixed hours, and to whom the difference between a fare of four cents, and having to pay ten cents per trip in every case where a passenger is necessitated to leave a main route for no matter how short a distance, constitutes a very considerable drawback from the average daily earnings of the bulk of the population—those who had it in their exclusive power, regardless of the wishes and remonstrances of our citizens, made a most shameless and fraudulent transfer of those valuable franchises, in part to themselves, but principally to, and in the interest of, a non-resident adventurer under whose manipulations the whole thing was engineered and matured.

But what principally concerns the tax-payers and the masses of our people at the present time, is the failure on the part of that company to pay the one-fifth of its receipts into the City Treasury, (as before stated, because of the act of a former City Council,) to do which was not only a part of the compact, but that amount was absolutely set aside and dedicated to meet the cost of Park improvements, and to pay the interest on a debt created for that purpose. As before stated, I do not believe the City Council had the right to change it.

I respectfully recommend to the City Council that the law officers of the City be instructed to institute such steps as will force the company to comply with the stipulations entered into by the terms of the grant, and that they be further instructed to examine whether the company cannot be compelled to comply with the other condition of the grant which says "*the fare for transporting passengers from any one part of the City to any other, on the line of their railways, shall not exceed the sum of five cents per passenger.*" The privilege of changing the rate of fare from five to six cents, was authorized by an Act of the Legislature, 1864, ch. 170, *in consequence of representations on the part of said company that because of the unprecedented advance in the price of labor and materials*, &c., and in 1865, ch. 100, the Legislature further enacted, (in both cases, as is believed, without the knowledge or consent of the people of Baltimore, on whom the burthen was made to fall,) that "*whereas, in consequence of the further and extraordinary increase of labor and materials, it has become necessary that the Baltimore City Passenger Railway Company should have more effectual relief than was sought to be provided by the Act passed the 7th March*, 1864; *and whereas, it is not deemed expedient, having due regard either for the interest or convenience of the public, or the welfare of said company* that

the rate of fare for single passengers in the same cars should be increased beyond six cents:" the act goes on to enact, *in the most singular and doubtful phraseology*, that said company may charge, in addition to the six cents referred to, four additional cents for transfer.

Even if if it were true that labor and materials had so appreciated in cost, at that time, as to warrant an additional burthen to be put upon the public, there can surely be no person, at this time, who would pretend to ignorance of the fact that materials are now at about their very lowest price, and that labor is so much reduced, as to demand at the hands of your honorable bodies that some efficient and decisive steps be taken to relieve the people from the excessive increase of fares complained of, which if not in the power of the city, is unquestionably within the power of the State Legislature to do. The people have the right to demand that all such gross impositions should be redressed.

I beg leave to refer to the reports of the several departments of the City Government (submitted herewith) for the details of their operations for the past fourteen months, including work done, and moneys collected and expended, together with estimates of funds required for the coming year. As the appropriations are not usually made until after the Spring opens, I shall take occasion, before that times arrives, to offer suggestions in detail concerning these reports, which the little time allowed me since their reception, and the condition of my health, have prevented me from doing in this communication—premising that many improvements have suggested themselves to me in the operations of the departments, which I will endeavor to submit in the early future.

All of which is respectfully submitted.

Geo. P. Kane, *Mayor.*

ANNUAL REPORT

OF THE

DEPARTMENT OF FINANCE

TO THE

Members of the First and Second Branches

OF THE

CITY COUNCIL,

EXHIBITING THE

OPERATION AND CONDITION OF THE SINKING FUNDS,

From Nov. 1st, 1876, to Dec. 31st, 1877.

REPORT.

BALTIMORE, December 31, 1877.

To the Honorable the Members of the

First and Second Branches City Council of Baltimore.

GENTLEMEN:

The Commissioners of Finance have the honor to submit for your consideration statements in detail, exhibiting their transactions during the past fourteen months, as follows, viz:

1. A summary of receipts and payments on account of the various Sinking Funds.

2. A statement of investment purchases.

3. A statement exhibiting the amount of investments of the Sinking Funds, December 31st, 1877.

4. A statement of the consolidation of old stock issues.

5. A schedule of real estate from which income is derived.

6. A statement of the funded debt of the City, and of the guarantees.

7. A balance sheet of the Sinking Funds' ledger.

The matters embraced in the foregoing are exhibited under the respective heads, in a detailed form, in the appendix to this report.

1.—Receipts and Payments.

The receipts have been derived as follows:

From cash to credit of funds October 31st, 1876		$3,010 86
From Dividends on Baltimore and Ohio Railroad Stock	$422,500 00	
From sale of five per cent. Water Loan, 1916	5,017,711 02	
From accrued interest received from purchasers of five per cent. Water Loan, 1916	13,090 69	
From Baltimore and Ohio Railroad Company, on account of purchase of Pittsburg & Connellsville Railroad Bonds	40,000 00	
From redemption of $55,000 York and Cumberland R. Road Bonds	55,000 00	
From redemption of $109,765 28 Water Stock of 1875	109,765 28	
From Thomas J. Morris for redemption of ground rent	2,284 67	
From Francis Denmead for redemption of ground rent	1,468 00	
From Mayor and City Council for note	225,000 00	
		$5,886,819 66
From interest upon investments		474,072 51
From rental of real estate		22,040 38
From Western Md. R. R. Co. for rental of Hillen Station, to Dec. 15,'75, under contract authorized by Ordinance No. 97, 1875		18,666 66
(Of this amount $2,333 32, being one-eighth, is set apart as a sinking fund.)		
Amount carried forward		$6,404,610 07

Amount brought forward.....		$6,404,610 07
From Tax collections, levies for increase of Funds.....		82,731 06
From City Passenger Railway Co.		5,124 59
From York Road Railway Co.....		301 25
From Citizens' Railway Co.....		3,435 13
From Baltimore, Peabody Heights and Waverly Railway Co		1,509 56
From Sales of Stock		828 49
		$6,498,540 15

The payments have been made as follows:

For investment purchases.....	$1,012,553 34	
For Paving Note of Mayor and City Council.....	25,785 71	
For interest on Stock Debt.....	422,500 00	
For Water Stock 1875, redeemed	4,772,186 56	
For accrued interest received from the purchasers of 5 per cent. Water Loan, 1916, and paid over to Water Board.....	13,090 69	
For accrued interest on $109,800, 5 per cent, Water Loan, 1916...	421 14	
For Depot for Western Maryland Railroad Company.....	765 25	
For expenses in issuing five per cent. Water loan, 1916.....	3,951 95	
For sundry Office expenses.....	1,676 75	
		$6,252,931 39
Balance		$ 245,608 76
Cash in Bank to redeem Water Stock, 1875, outstanding.....	227,813 44	
Cash in Bank to credit of Funds..	17,795 32	
		$245,608 76

2.—Investment Purchases.

This statement is submitted in obedience to Article XLII, Section 13, of the Code, and exhibits in detail the purchase of Stocks and Bonds, amounting to $1,013,231.01 at an average cost of $99\frac{93}{100}$ per cent.

3.—The Amount of Investments of the Sinking Funds.

Exhibiting in detail the amount and condition of the investments of the Funds, as shown by the books of the Commissioners of Finance.

Productive Investments:		
General Sinking Fund	$7,136,965 20	
Public Park Sinking Fund	269,708 87	
New City Hall Sinking Fund	482,477 36	
Water Stock Sinking Fund	527,888 83	
Funding Loan, 1900, Sinking Fund	80,582 19	
Funding Loan, 1894, Sinking Fund	69,523 79	
Jones' Falls Sinking Fund	69,523 79	
Hillen Station Sinking Fund	3,741 66	
		$8,640,411 69
Other Productive Investments:		
Real Estate, as shown in Statement No. 5, from which is derived an annual rental of $19,866 86		
This sum capitalized at 6 per cent., is worth	$331,114 44	
550 shares Stock, Baltimore and Reisterstown Turnpike Co.	2,750 00	
Amounts carried forward	$333,864 44	$8,640,411 69

Amounts brought forward.	$333,864 44	$8,640,411 69
625 shares stock, Baltimore and Yorktown Turnpike Company	3,150 00	
120 shares stock, Baltimore and Havre de Grace Turnpike Company	4,000 00	
137 shares stock, Frederick Turnpike Company	206 00	
		$ 341,220 44
Unproductive Investments.		
Western Md. Railroad Company, 4,000 shares stock	200,000 00	
Western Md. Railroad Company, mortgage to secure endorsements	1,375,000 00	
Western Md. Railroad Company, loan of City Stock	1,000,000 00	
Western Md. Railroad Company, accrued interest advanced,	938,532 57	
Balto., Susquehanna and Tide Water Canal Company, 7,600 shares	380,000 00	
Valley Railroad Company of Virginia Stock	1,000,000 00	
Baltimore and Hall Springs Railway Company Stock, 312 shares	6,240 00	
		$ 4,899,772 57
Total Productive and Unproductive Investments		$13,881,404 70

Increase of Sinking Funds.

The increase of the Funds, from Nov. 1, 1876, to Dec. 31, 1877, amounting to.....			$621,564 34
Was derived thus:—			
From interest upon investments...	$473,576 37		
" rental of Hillen Station.....	16,333 34		
" rental of real estate.....	22,040 38		
" tax collections.....	82,731 06		
" premium on five per cent. Water Loan, 1916.....	17,711 02		
" redemption of ground rents,	3,752 67		
" City Passenger Railway Co.	5,124 59		
" York Road Railway Co.....	301 25		
" Citizens' Railway Co.....	3,435 13		
" Balto. Peabody Heights and Waverly Railway Co.....	1,509 56		
" gain in purchase of stocks,	677 67		
	$627,193 04		
Deduct amount sundry expenses,	5,628 70		
			$621,564 34
And disbursed and held, as follows:—			
For investment purchases.....	$1,013,231 01		
" Paving Note of Mayor and City Council.....	25,785 71		
" Western Maryland Railroad Depot, during the year.....	765 25		
	$1,039,781 97		
Less am't purchases belonging to 1876,	$432,776 14		
Less sales of stock,	828 49		
Less am't received for Hillen Station Sinking Fund.....	2,408 32		
		$436,012 95	
		$603,769 02	
Add am't on hand to credit of funds,		17,795 32	
			$621,564 34

TAXES FOR INCREASE OF REDEMPTION FUNDS.

On November 1st, 1876, there was due and uncollected:—

Upon the levy of 1869	$1,264 66		
" " 1870	4,613 81		
" " 1871	2,465 52		
" " 1872	2,613 71		
" " 1873	5,424 52		
" " 1874	20,851 14		
" " 1875	19,902 22		
" " 1876	33,982 76		
		$91,118	34
The levy by Ordinances 74 and 75, Annual Session 1877, being 3 cents on each $100 of assessable property, (basis $256,105,341,) should produce		76,831	60
		$167,949	94

The collections have been:—

Upon the levy of 1871	$ 28		
" " 1872	15 10		
" " 1873	857 56		
" " 1874	9,385 06		
" " 1875	5,810 23		
" " 1876	21,384 59		
" " 1877	45,278 24		
		$82,731	06
Balance uncollected Dec. 31, 1877...		$85,218	88

4.—THE CONSOLIDATION OF OLD STOCK ISSUES,

Authorized by Ordinances No. 92, of 1864, and No. 42, of 1867, made during the year, amounts, as shown, to a sum total of	$77,622	25

5.—Real Estate.

The Schedule of Real Estate presented in this form for convenience of reference, embraces only so much of the City Property as is in control and shown upon the books of this Board, and from which income is derived by rentals.

The income derived from the public wharves and other valuable property, being applied to current expenditures, does not appear in these accounts. Baltimore City Code, Section 14, Article XLII, page 717.

6.—The Funded Debt and Guarantees,

Amount to a sum total of.....		$34,092,965 17
At date of last annual report, Oct. 31st, 1876, these issues amounted to.....		33,343,251 73
Amount of increase during the fourteen months ending Dec. 31st, 1877.....		$749,713 44
Thus:—		
Amount of 5 per cent. Water Loan of 1916, issued.	$5,000,000 00	
Amount of 5 per cent. Water Loan of 1894, issued.....	886,600 00	
Amount of Jones' Falls Loan of 1900, issued.....	135,300 00	
	$6,021,900 00	
Less,		
Amount of Water Loan, 1875, redeemed $4,772,186 56		
Amount of York & Cumberland Railroad, guaranteed Bonds redeemed... 500,000 00		
	$5,272,186 56	
		$749,713 44

INCREASE OF FUNDED DEBT AUTHORIZED.

The Jones' Falls loan of 1900, by Ordinance No. 12, of 1870	$1,890,800 00
The Water Loan of 1894, by Ordinance No. 5, of 1874	2,450,400 00
	$4,341,200 00

7.—THE FINANCIAL CONDITION OF THE CORPORATION.

Amount of Funded Debt, December 31st, 1877	$32,600,965 17	
Amount of Guarantee Liabilities, December 31st, 1877	1,492,000 00	$34,092,965 17
Less amount of over-due Water Stock, 1875, no interest allowed	227,813 44	
Less amount of over-due Stock, no interest allowed	732 00	228,545 44
Total debt bearing interest		$33,864,419 73
Of this amount interest is provided or paid as follows:		
The Baltimore and Ohio Railroad Company, upon	$5,000,000 00	
The City Passenger Railway Companies, upon	755,566 25	
The Water Board, from income upon	5,000,000 00	
The Union Railroad Company upon	117,000 00	10,872,566 25
Amount carried forward		$22,991,853 48

Amount brought forward...		$22,991,853 48
Productive Investments:		
The Baltimore and Ohio Railroad Stock, 32,500 shares, dividends 6 per cent. per annum $195,000 00		
This provides the interest upon	$3,250,000 00	
Baltimore and Reisterstown Turnpike Company Stock, 550 shares	2,750 00	
Balto. and Yorktown Turnpike Company Stock, 625 shares	3,150 00	
Balto. and Havre de Grace Turnpike Company Stock, 120 shares.....	4,000 00	
Frederick Turnpike Company Stock, 137 shares.....	206 00	
The Sinking Funds, value	8,640,411 69	
The Real Estate, annual rental $19,866 86		
The wharf property annual income ... 45,000 00		
The market houses, annual income ... 45,000 00		
Annual income...$109,866 86		
This provides interest upon.....	1,831,114 33	
		$13,731,632 02
Balance.		$ 9,260,221 46

Unproductive Investments:

Western Maryland Railroad Co. 4,000 shares Stock.....	$200,000 00	
Western Maryland Railroad mortgage to secure endorsements.....	1,375,000 00	
Western Maryland Railroad Co., Loan of City Stock....	1,000,000 00	
Western Maryland Railroad Co., accrued interest advanced.....	938,532 57	
Baltimore, Susquehanna and Tidewater Canal Company Stock, 7,600 shares.....	380,000 00	
Baltimore and Hall Springs Railway Company Stock, 312 shares.....	6,240 00	
Valley Railroad Company, of Virginia, Stock.....	1,000,000 00	
		$4,899,772 57

This Statement does not embrace any items connected with current receipts and expenditures, but refers only to the stock and bond liabilities of the Corporation, and to investments specifically set apart for redemption of the same.

The Five Per Cent. Five Million Loan to substitute the Five Million Six Per Cent. Water Loan of 1875, referred to in the last report, was all sold at an aggregage premium of $17,711 02, effecting a saving to the tax-payers of $50,000 per annum less the State taxes.

We have the honor to be

Very sincerely,

Your obedient servants,

GEO. P. KANE, *Chairman.*

ENOCH PRATT,

JAMES HODGES,

Commissioners of Finance.

JOHN A. ROBB,

Clerk to Commissioners of Finance.

APPENDIX.

STATEMENT

DR. *The Commissioners of Finance in account with*

To balance of cash in bank, Nov. 1st, 1876, being amount due Sinking Funds.....		$ 3,010 86
To General Sinking Fund—		
Received for fractions of Stock sold	$ 828 49	
Received from rental of Real Estate	22,040 38	
Received from rental Hillen Station	16,333 34	
Received for interest on stock and investments.....	392,251 76	
Received for account of sale of Pittsburg & Connellsville R. R. Bonds	40,000 00	
Received for $55,000 York & Cumberland R. R. Bonds, redeemed,	55,000 00	
Received for $107,465 28 Water Stock 1875, redeemed.....	107,465 28	
Received of Thomas J. Morris for redemption of ground rent on lots 9 and 10, and part of 1 on the North side of Block street.....	2,284 67	
Received of Francis Denmead for redemption of ground rent on lot No. 4, North side of Block St ...	1,468 00	
Received for premium on five per cent. Water Stock, 1916, sold...	17,711 02	
		$655,382 94
To Water Stock Sinking Fund—		
Received for interest on Stock	30,445 75	
Received $2,300 Water Stock, 1875, redeemed.....	2,300 00	
		$32,745 75
Amount carried forward		$691,139 55

No. 1.

the Mayor and City Council of Baltimore. Cr.

By General Sinking Fund—		
Purchased fractions of City Stock,	$ 1,398 57	
Purchased $811,204.44 of City five per cent. stock	810,526 77	
Purchased $228 of coupons of Western Maryland R. R. first mortgage Unendorsed Bonds as per Ordinance No. 41, of 1874..	228 00	
Purchased Paving Note of Mayor and City Council dated March 17th, 1877, at 12 months, for $25,785.71	25,785 71	
Paid for account Western Maryland Railroad Depot	765 25	
Paid accrued interest on $107,500 5 per cent. Water Stock, 1916...	412 32	
Paid expenses; recording mortgage, stationery, printing reports, &c.	1,676 75	
Paid expenses attending issue of 5 per cent. Water Loan, 1916, viz:		
Advertising and Printing	1,961 95	
Stock Certificates	1,750 00	
Clerical Services	240 00	
		$844,745 32
By Water Stock Sinking Fund—		
Purchased $39,500 of City 5 per cent. Stock	$39,500 00	
Paid accrued interest on $2,300 5 per cent. Water Stock, 1916...	8 82	
		$ 39,508 82
Amount carried forward		$884,254 14

STATEMENT

DR. *The Commissioners of Finance in account with*

Amount brought forward.....		$691,139 55
To Public Park Sinking Fund—		
Received for interest on Stock.....	$14,968 00	
Received from City Passenger Railway Company.....	5,124 59	
Received from York Road Railway Company.....	301 25	
Received from Citizens' Railway Company.....	3,435 13	
Received from Baltimore, Peabody Heights and Waverly Railway Company.....	1,509 56	
		$ 25,338 53
To New City Hall Sinking Fund—		
Received for interest on Stock	25,775 00	
Received of Mayor and City Council for Tax Levy.....	51,158 39	
		$ 76,933 39
To Funding Loan, 1900, *Sinking Fund—*		
Received for interest on Stock	3,457 00	
Received of Mayor and City Council for Tax Levy.....	24,556 11	
		$ 28,013 11
To Funding Loan, 1894, *Sinking Fund—*		
Received for interest on Stock	3,550 00	
Received of Mayor and City Council for Tax Levy.	3,508 28	
		$ 7,058 28
Amount carried forward.....		$828,482 86

No. 1.

The Mayor and City Council of Baltimore. Cr.

Amount brought forward.....	$884,254 14
By Public Park Sinking Fund—	
Purchased $29,000 of City 5 per cent. Stock.....	29,000 00
By New City Hall Sinking Fund—	
Purchased $81,600 of City 5 per cent. Stock.....	81,000 00
By Funding Loan, 1900, *Sinking Fund—*	
Purchased $30,500 of City 5 per cent. Stock.....	30,500 00
By Funding Loan, 1894, *Sinking Fund—*	
Purchased $8,200 of City 5 per cent. Stock.....	8,200 00
By Jones' Falls Sinking Fund—	
Purchased $8,200 of City 5 per cent. Stock.....	8,200 00
By Hillen Station Sinking Fund—	
Purchased $3,400 of City 5 per cent. Stock.....	3,400 00
By Balto. & Ohio Railroad Dividends—	
Paid Mayor and City Council for interest on Stock Debt.....	422,500 00
Amount carried forward.....	$1,467,654 14

STATEMENT

DR. *The Commissioners of Finance in account with*

Amount brought forward.....		$828,482 86
To Jones' Falls Sinking Fund—		
Received for interest on Stock.....	$3,550 00	
Received of Mayor and City Council for Tax Levy.....	3,508 28	
		7,058 28
To Hillen Station Sinking Fund—		
Received for interest on Stock.....	75 00	
Received of Western Maryland Railroad Company.....	2,333 32	
		2,408 32
To Baltimore & Ohio Railroad Dividends—		
Received for Dividends on Stock.....		422,500 00
To Five Per Cent. Water Loan, 1916—		
Received for five per cent. Water Stock, 1916.....		5,000,000 00
To Interest on Five Per Cent. Water Loan, 1916—		
Received for accrued interest on five per cent. Water Stock, 1916, sold,		13,090 69
To Loans—		
Received of Mayor and City Council, for Note.....		225,000 00
		$6,498,540 15

No. 1.

the Mayor and City Council of Baltimore. Cr.

Amount brought forward		$1,467,654 14
By Redemption of Water Loan, 1875—		
Paid for $4,772,186.56 Water Stock, 1875, redeemed		$4,772,186 56
By Interest on Five Per Cent. Water Loan, 1916—		
Paid Wm. L. Sharetts, Water Registrar	13,090 69	
By balance, cash in bank to credit of Water Loan, 1875	227,813 44	
By balance, cash in bank to credit of Sinking Funds	17,795 32	
		$6,498,540 15

STATEMENT No. 2.

"The Commissioners of Finance shall invest in City Stock all moneys in their hands, or to their credit in bank, received for the sale or rent of city property pledged for the redemption of the public debt; and shall also invest all moneys that may hereafter be received from the above mentioned sources, as well as all interest accruing thereon from time to time, and report to the City Council the amount purchased, and the dates and prices at which they were purchased."—Article XLII, Baltimore City Code, section 13.

Date.	Sinking Fund.	Amount Purchased.	Description of Stock.	Amount paid.
1876.				
Nov. 23.	General Sinking Fund.....	$1,200 00	Consol. 5 per cent. Loan 1885..	$1,155 00
" 24.	" "	500 00	" " "	481 25
1877.				
Jan. 20.	" "	1,000 00	" " "	957 50
Feb. 13.	" "	135,000 00	5 per cent. Water Loan 1894...	135,000 00
"	Public Park Sinking Fund....	10,000 00	" " " ...	10,000 00
"	City Hall Sinking Fund.....	25,000 00	" " " ...	25,000 00
"	Water Stock Sinking Fund...	15,000 00	" " " ...	15,000 00
"	Fund. loan 1900 Sinking Fund	9,000 00	" " " ...	9,000 00
"	Fund. loan 1894 Sinking Fund	3,000 00	" " " ...	3,000 00
"	Jones' Falls Sinking Fund.....	3,000 00	" " " ...	3,000 00
"	General Sinking Fund.....	1,000 00	Consol. 5 per cent. Loan 1885..	957 50
Mar. 17.	" "	10,000 00	" " " ..	9,500 00
April 16.	" "	100 00	" " " ..	95 25
" 20.	" "	45,000 00	5 per cent. Water Loan 1894...	45,000 00
" 20.	Public Park Sinking Fund...	4,000 00	" " " ...	4,000 00

April 20.	City Hall Sinking Fund.....	$12,000 00	5 per cent. Water Loan 1894...	$12,000 00
"	Water Stock Sinking Fund...	6,000 00	" " " ...	6,000 00
"	Fund. loan 1900 Sinking Fund	3,000 00	" " " ...	3,000 00
May 30.	General Sinking Fund.....	459 78	Consol. 5 per cent. Loan 1885..	447 14
June 20.	" "	644 66	" " " ...	633 38
July 10.	" "	95,000 00	5 per cent. Water Loan 1894...	95,000 00
"	Public Park Sinking Fund....	8,000 00	" " " ...	8,000 00
"	City Hall Sinking Fund.....	11,000 00	" " " ...	11,000 00
"	Water Stock Sinking Fund...	9,500 00	" " " ...	9,500 00
"	Jones' Falls Sinking Fund....	3,000 00	" " " ...	3,000 00
"	Hillen Station Sinking Fund..	2,500 00	" " " ...	2,500 00
"	Fund. loan 1900 Sinking Fund	3,000 00	" " " ...	3,000 00
"	Fund. loan 1894 Sinking Fund	3,000 00	" " " ...	3,000 00
July 31.	General Sinking Fund.....	100 00	Consol. 5 per cent. Loan 1885..	99 25
Aug. 31.	" "	107,500 00	5 per cent. Water Loan 1916...	107,500 00
"	Water Stock Sinking Fund...	2,300 00	" " " ...	2,300 00
Sept. 10.	General Sinking Fund.....	365,000 00	" " 1894...	365,000 00
"	Water Stock Sinking Fund...	1,900 00	" " " ...	1,900 00
"	Public Park Sinking Fund....	2,000 00	" " " ...	2,000 00
"	City Hall Sinking Fund.....	24,000 00	" " " ...	24,000 00
"	Jones' Falls Sinking Fund....	600 00	" " " ...	600 00
"	Hillen Station Sinking Fund..	500 00	" " " ...	500 00
"	Fund. loan 1900 Sinking Fund	12,000 00	" " " ...	12,000 00
"	Fund. loan 1894 Sinking Fund	600 00	" " " ...	600 00
Oct. 4.	General Sinking Fund.....	200 00	Consol. 5 per cent. Loan 1885..	200 50
	Amount forward.....	$936,604 44	Amount forward.....	$935 926 77

STATEMENT No. 2—Continued.

1877.	Amount brought forward.....	$936,604 44	Amount brought forward.		$935,926 77
Nov. 15.	General Sinking Fund.....	48,500 00	5 per cent. Water Loan, 1894...		48,500 00
"	Public Park Sinking Fund....	5,000 00	" " "		5,000 00
"	City Hall Sinking Fund.....	9,600 00	" " "		9,600 00
"	Water Stock Sinking Fund...	4,800 00	" " "		4,800 00
"	Jones' Falls Sinking Fund....	1,600 00	" " "		1,600 00
"	Hillen Station Sinking Fund..	400 00	" " "		400 00
"	Fun. Loan 1900 Sinking Fund	3,500 00	" " "		3,500 00
"	Fun. Loan 1894 Sinking Fund	1,600 00	" " "		1,600 00
Dec. 31..	General Sinking Fund.....	228 00	W. Md. R. R. unendorsed Coup.		228 00
"	" "	1,398 57	Fractions of City Stock at par..		1,398 57
		$1,013,231 01			$1,012,553 34

RECAPITULATION.

DATE.	SINKING FUND.	AMOUNT PURCHASED.	DESCRIPTION OF STOCK.	AMOUNT PAID.
1877.				
Dec. 31..	General Sinking Fund.....	$811,204 44	5 per cent Stock.....	$810,526 77
"	" "	228 00	W. M. R. R. Unendorsed Coup.	228 00
"	" "	1,398 57	Fractions of City Stock.....	1,398 57
"	Water Stock Sinking Fund...	39,500 00	5 per cent Stock.....	39,500 00
"	Public Park Sinking Fund....	29,000 00	" "	29,000 00
"	City Hall Sinking Fund.....	81,600 00	" "	81,600 00
"	Fund. Loan 1900 Sink'g Fund	30,500 00	" "	30,500 00
"	Fund. Loan 1894 Sink'g Fund	8,200 00	" "	8,200 00
"	Jones' Falls Sinking Fund.....	8,200 00	" "	8,200 00
"	Hillen Station Sinking Fund..	3,400 00	" "	3,400 00
		$1,013,231 01		$1,012,553 34

STATEMENT No. 3.

Condition of Sinking Funds December 31, 1877.

General Sinking Fund.

Consolidated Loan, 1890, 6 per cent. stock	$ 30,010 14
Five Million Loan, 1890, 6 per cent. stock	2,596 18
City Hall Loan, 1884, 6 per cent. stock	109,400 00
City Hall Loan, 1900, 6 per cent. stock	23,100 00
City Hall Loan, 1902, 6 per cent. stock	800 00
Funding Loan, 1900, 6 per cent. stock	110,500 00
Funding Loan, 1894, 6 per cent. stock	1,447,000 00
One Million Loan, 1886, 6 per cent. stock	932 65
Western Maryland R. R. Loan, 1902, 6 per cent. stock	20,800 00
Park Improvement Loan, 1895, 6 per cent. stock	65,884 80
Public Park Loan, 1890, 6 per cent. stock	213 12
Consolidated Loan, 1893, 6 per cent. stock	1,315,901 38
Exempt Loan, 1893, 6 per cent. stock	353 87
Amount carried forward	$3,127,492 14

Amount brought forward.....		$3,127,492 14
Jones' Falls Loan, 1900, 6 per cent. stock.....	5,100 00	
Valley Railroad Loan, 1886, 6 per cent. stock.....	542,800 00	
Patterson Park Extension Loan, 1892, 6 per cent. stock.....	200,000 00	
Water Loan, 1894, 5 per cent. stock.....	838,500 00	
Water Loan, 1916, 5 per cent. stock.....	107,500 00	
Consolidated Loan, 1885, 5 per cent. stock.....	407,678 02	
		$2,101,578 02
Union R. R. guaranteed bonds,	87,500 00	
Western Md. R. R. 2d preferred bonds.....	178,500 00	
Western Md. R. R. guaranteed bonds.....	423,500 00	
Coupons of Western Md. R. R. 1st mortgage unendorsed bonds	71,667 00	
		$ 761,167 00
Paving note of Mayor and City Council.....		25,785 71
Amount of obligation of the Balto. & Ohio R. R. Co. received for the claim of the City against the Pittsburg & Connellsville R. R., as authorized by Ord. No. 47 of 1875.....	1,000,000 00	
Amounts carried forward.....	$1,000,000 00	$6,016,022 87

Amounts brought forward.....	$1,000,000 00	$6,016,022 87
Less payments on account of same made to the City by the Balto. & Ohio R. R. Co.....	80,000 00	
		$ 920,000 00
Amount payments to date on account of Hillen Street Station property as authorized by Ordinance No. 97 of 1875.....	197,135 16	
Less amount of the Hillen Street Station Sinking Fund, being one-eighth of the rental received under the contract with the Western Maryland Railroad Company, thus set apart for repayment of the amount of the cost thereof.....	3,741 66	
		$ 193,393 50
Cash.....		7,548 83
		$7,136,965 20
New City Hall Sinking Fund—		
City Hall Loan, 1884, 6 per cent. stock.....	$ 115,600 00	
City Hall Loan, 1900, 6 per cent. stock.....	1,200 00	
City Hall Loan, 1902, 6 per cent. stock.....	38,100 00	
Funding Loan, 1900, 6 per cent. stock.....	200 00	
Amount carried forward....	$155,100 00	

Amount brought forward.....	$155,100 00	
Funding Loan, 1894, 6 per cent. stock.....	174,900 00	
		$ 330,000 00
Water Loan, 1894, 5 per cent. stock.....		146,600 00
Cash		5,877 36
		$ 482,477 36
Public Park Sinking Fund—		
Consolidated Loan, 1890, 6 per cent. stock.....	$ 200 00	
City Hall Loan, 1884, 6 per cent. stock.....	18,900 00	
City Hall Loan, 1900, 6 per cent. stock.....	8,000 00	
Funding Loan, 1900, 6 per cent. stock.....	1,200 00	
Funding Loan, 1894, 6 per cent. stock.....	127,400 00	
Park Improvement Loan, 1895, 6 per cent. stock.....	9,600 00	
Consolidated Loan, 1893, 6 per cent. stock.....	5,400 00	
Valley Railroad Loan, 1886, 6 per cent. stock.....	29,600 00	
		$200,300 00
Water Loan, 1894, 5 per cent. stock.....		69,000 00
Cash.....		408 87
		$269,708 87

Water Stock Sinking Fund—

City Hall Loan, 1884, 6 per cent. stock	$65,200 00	
City Hall Loan, 1900, 6 per cent. stock	32,300 00	
Funding Loan, 1900, 6 per cent. stock	23,900 00	
Funding Loan, 1894, 6 per cent. stock	186,500 00	
Park Improvement Loan, 1895, 6 per cent. stock	5,700 00	
Consolidated Loan, 1893, 6 per cent. stock	61,800 00	
Valley Railroad Loan, 1886, 6 per cent. stock	72,900 00	
		448,300 00
Water Loan, 1894, 5 per cent. stock	77,200 00	
Water Loan, 1916, 5 per cent. stock	2,300 00	
		79,500 00
Cash		88 83
		$527,888 83

Funding Loan, 1900, *Sinking Fund—*

Funding Loan, 1894, 6 per cent. stock	$12,200 00
Water Loan, 1894, 5 per cent. stock	65,500 00
Cash	2,882 19
	$80,582 19

Funding Loan, 1894, Sinking Fund—

Funding Loan, 1894, 6 per cent. stock	26,000 00
Water Loan, 1894, 5 per cent. stock	43,200 00
Cash	323 79
	$69,523 79

Jones' Falls Sinking Fund—

Funding Loan, 1894 6 per cent. stock	$26,000 00
Water Loan, 1894, 5 per cent. stock	43,200 00
Cash	323 79
	$69,523 79

Hillen Station Sinking Fund—

Water Loan, 1894, 5 per cent. stock	$3,400 00
Cash	341 66
	$3,741 66

Recapitulation of the Condition of the Sinking Funds December 31, 1877.

General Sinking Fund	$7,136,965 20
Public Park Sinking Fund	269,708 87
New City Hall Sinking Fund	482,477 36
Water Stock Sinking Fund	527,888 83
Funding Loan, 1900, Sinking Fund	80,582 19
Funding Loan, 1894, Sinking Fund	69,523 79
Jones' Falls Sinking Fund	69,523 79
Hillen Station Sinking Fund	3,741 66
	$8,640,411 69

STATEMENT No. 4.

Statement of the Surrender of Old Stock Issues, and the Consolidations thereof, made during the fourteen months ending December 31st, 1877, as authorized by Ordinance No. 92, of 1864, and Ordinance No. 42, of 1867.

DATE.	AFTER YEAR 1890.	BALTO. AND SUSQ'NA R.R	SUSQUEHANNA CANAL.	ALMSHOUSE.	COURT HOUSE.
1876.					
Nov. 11		$ 7,191 69			
Dec. 5		16,743 12	$5,256 88		
" 7		1,297 48			
1877.					
Jan. 8			194 72		
" 19		5,000 00	5,000 00		
Feb. 15		190 00			
" 23			1,500 00		
Mar. 7			1,500 00		
April 3	$100 00			$2,270 02	
" 4	432 00				
" 11	500 00				
" 23		304 26			
" 25		1,300 00			
May 9			2,000 00		
" 19			1,000 00		
" 25		100 00			
June 5	385 11				$4,500 00
" 8	679 25				
July 2		1,179 00			
" 14		165 00			
Sept. 8				1,125 23	
" 10		1,000 000			
Oct. 6			2,000 00		
Nov. 2			7,000 00		
Dec. 4		4,670 00			
" 10	3,038 49				
	$5,134 85	$39,140 55	$25,451 60	$3,395 25	$4,500 00
	Total				$77,622 25

STATEMENT No. 5.

A Schedule of Real Estate upon the Books of the Commissioners of Finance.

LESSEES.	LOCATION OF LOTS.	ANNUAL RENTAL.
Swain & Banks	Lots 9, 10, 11, 12, President street	$ 452 25
E. A. Abbott	Lots 12, 13, 14, 15, north side Block street	380 41
B S. Holt	Lots 16, 17, 18, 19, 20, 21, 22, 23, north side Block st	809 78
J. McNeal	Lot 9, north side Block street	56 91
C. S. Maltby	Lots 5, 6, 7, 8, north side Block street	293 60
"	42 feet, north side Block street	189 00
John Welch	Lot 11, north side Block street	96 55
Calvert Sugar Refinery	Lots 24, 25, 26, 27, 28, 29, 30, south side Block street	721 88
C. S. Maltby	Lots 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, south side Block street	1,262 24
C. S. Maltby	Lots 41, 42, 43, south side Block street	427 50
Joseph Kaufman	Lots 1, 2, 3, 4, 5, 6, Brown street	150 00
William Groscup	Lot 7, "	33 60
C. L. Frank	Lot 8, "	19 20
Joseph Baumgarten	Lot 9, "	26 32
Wm. Kleinhenn	Lot 10, "	26 32
Anton Young	Lots 11, 12, "	52 64
Chas. N. Oehm	Lots 13, 14, "	51 80
Catharina Karch	Lot 15, "	26 32
N. Thomas & Co	Lots 17, 18, "	52 64

Frederick Kull	Lot 19, Brown street	19 20
George Wimmer	Lot 20, "	20 32
E. Snellenberg	Lots 21, 22, "	54 49
J. A. G. Goetz	Lot 23, "	29 60
August Pfeil	Lot 25, "	29 60
Francis Schott	Lot 29, "	26 32
August Pfeil	Lot southwest corner Light and Brown streets	78 06
George Hickman	Lot on Run alley	52 00
Wilson & Hunting	Lots 5, 6, 7, 8, west side President street	502 50
Alexander Horner	Lots 1, 2, 3, west side President street	537 94
Estate of Catherine Hook	Lot on Light street	75 70
John H. Hugg & Co	Lot corner Canton avenue and East Falls avenue	250 00
Platt & Co.	Fish House property, south side of the Basin	2,025 00
Henry James	Lots 1, 2, 3, 10, 11, 12, and part of 4 and 13, on Aliceanna street and Lancaster street	674 24
Henry James	Lots 5, 6, 7, 8, 9, and part of 4, Aliceanna street, and 14, 15, 16, 17, 18, and part of 13 Lancaster street	810 93
Henry James	Lot south side of Aliceanna street, between Exeter and Canal streets	860 00
Balto. & Phila. Steamboat Co.	200 feet on Light street wharf	3,600 00
Philadelphia, Wilmington and Baltimore R. R. Co.	Lots on Canton avenue, between Albemarle and Exeter streets	2,512 00
Philadelphia, Wilmington and Baltimore R. R. Co.	Lots on Canton avenue, between Exeter and Canal streets	2,580 00
		$19,866 86

STATEMENT No. 6.

Statement of Funded Debt, December 31, 1877.

LOAN.	RATE.	WHEN PAYABLE.	AMOUNT.
Court House	5 per cent.	At pleasure after the year 1860	$ 87,900 00
Consolidated	5 "	" " " 1885	941,161 54
Consolidated	6 "	" " July 1, 1890	7,306,546 22
Public Park	6 "	" " Sept. 1, 1890	555,566 25
Exempt	6 "	" " " 1, 1893	410,353 87
Funding	6 "	" " Feb. 1, 1894	2,000,000 00
Water	6 "	" " July 1, 1894	263,000 00
Water	5 "	" " " 1, 1894	1,286,600 00
Funding	6 "	" " " 1, 1900	800,000 00
Water	5 "	" " " 1, 1916	5,000,000 00
City Hall	6 "	July 1, 1884	1,000,000 00
One Million	6 "	January 1, 1886	1,000,000 00
Valley Railroad	6 "	October 31, 1886	1,015,300 00
Five Million	6 "	January 1, 1890	5,000,000 00
Patterson Park Extension	6 "	March 8, 1892	200,000 00
Consolidated	6 "	September 1, 1893	2,211,068 05
Park Improvement	6 "	January 1, 1895	185,723 80
City Hall	6 "	April 15, 1900	1,000,000 00
Jones' Falls	6 "	April 9, 1900	609,200 00
Western Md. Railroad	6 "	January 1, 1902	1,000,000 00
City Hall	6 "	March 7, 1902	500,000 00
Water	6 "	No interest allowed	227,813 44
Over-due Stock		" "	732 00
			$32,600,965 17

STATEMENT No. 6.—Concluded.

Statement of Guaranteed Debt, December 31, 1877.

Bonds of the Western Maryland Railroad Company:		
1st Mortgage to mature January 1st, 1890	$200,000 00	
2d Mortgage to mature January 1st, 1890	300,000 00	
4th Mortgage to mature January 1st, 1900	875,000 00	
		$1,375,000 00
Of which the Register of the City holds in the Western Md. R. R. Sinking Fund.....$144,500 00		
Bonds of the Union Railroad Company to mature Jan. 1st, 1895...		117,000 00
Of which the Commissioners of Finance hold in the General Sinking Fund.....$87,500 00		
Total Guaranteed Debt.....		$1,492,000 00

STATEMENT No. 7.

A Balance Sheet of the Sinking Funds Ledger, Dec. 31, 1877.

CREDIT.		
General Sinking Fund		$ 7,548 83
Public Park Sinking Fund		408 87
New City Hall Sinking Fund		5,877 36
Water Stock Sinking Fund		88 83
Funding Loan, 1900, Sinking Fund		2,882 19
Funding Loan, 1894, Sinking Fund		323 79
Jones' Falls Sinking Fund		323 79
Hillen Station Sinking Fund		341 66
Five Per Cent. Water Loan, 1916		5,000,000 00
DEBIT.		
Redemption of Water Loan, 1875	$4,772,186 56	
Cash	245,608 76	
	$5,017,795 32	$5,017,795 32

STOCK DEBT.

Name of Issue.	Rate per Annum.	When Payable.	Where Payable.
Five Million Loan...1890	6 per cent.	Jan., April, July and Oct.....	Nat. Farm. and Planters' Bank
Consolidated Loan...1890	6 "	" " "	" " "
City Hall Loan.....1884	6 "	" " "	" " "
" " 1900	6 "	" " "	" " "
" " 1902	6 "	" " "	" " "
Funding Loan.....1900	6 "	" " "	" " "
Consolidated Loan...1885	5 "	" " "	" " "
Valley R. R. Loan...1886	6 "	" " "	National Mechanics' Bank.
Park Imp. Loan.....1895	6 "	" " "	" "
Court House.....1860	5 "	" " "	" "
Public Park Loan...1890	6 "	March, June, Sept. and Dec...	" "
Jones' Falls Loan....1900	6 "	Feb., May, Aug. and Nov.....	" "
One Million Loan....1886	6 "	January and July.....	" "
W. Md. R. R. Loan...1902	6 "	" "	" "
Water Loan..... 1916	5 "	May and November.....	" "
Consolidated Loan...1893	6 "	March and September.....	" "
Exempt Loan.....1893	6 "	" "	" "
Patterson Park Ext. 1892	6 "	Jan., April, July and Oct.....	City Register's Office.
Funding Loan.....1894	6 "	January and July.....	" "
Water Loan.....1894	6 "	May and November.....	" "
" " 1894	5 "	" "	" "

GUARANTEES.

Name of Issue.	Rate per Annum.	When Payable.	Where Payable.
Western Maryland Railroad Company's Bonds	6 per cent.	January and July.....	National Mechanics' Bank.
Union Railroad Comp'y's Bonds.....	6 per cent.	January and July.....	Franklin Bank.

ANNUAL REPORT

OF THE

CITY COMMISSIONER,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

REPORT.

City Commissioner's Office,

Baltimore, January 1st, 1878.

To the Honorable, the Mayor

and City Council of Baltimore:

Gentlemen:

I respectfully submit the following as my annual report of the operations of this department, for the fourteen months, commencing 1st November, 1876, and ending 31st December, 1877.

GRADING AND PAVING NEW STREETS AND REPAIRING STREETS.

By table C, herewith annexed, it will be seen that 951,204 square feet of new cobble-stone paving, and 34,621 square yards or 311,589 square feet of granite block (Belgian) repaving, have been added to the paved streets of the City, since my last report; a decrease of 559,558 square feet of cobble paving, and an increase of 24,618 square yards of Belgian paving, as compared with the previous year.

The superiority of the granite block pavement over all other kinds of pavement that have been tried in the City, is quite apparent, and, notwithstanding depressions existing at various points, caused principally by the trenches cut through it by the Water Board and Gas companies, presents an excellent appearance. After the trenches have properly settled, the inequalities will be re-adjusted to conform to the normal grades of the streets.

I insert the table showing the amount of cobble stone paving done for a number of years past, and have added a table showing the quantity of Belgian paving:

Paving done in the year	1863	square feet.....		20,849
"	" 1864	"		88,109
"	" 1865	"		66,960
"	" 1866	"		61,943
"	" 1867	"		70,336
"	" 1868	"		179,999
"	" 1869	"		806,290
"	" 1870	"		306,440
"	" 1871	"		481,741
"	" 1872	"		182,523
"	" 1873	"		168,808
"	" 1874	"		367,655
"	" 1875	"		1,025,661
"	" 1876	"		1,510,762
"	" 1877	"		951,204

Table showing the amount of Belgian pavement laid:

Belgian paving laid	year 1874	square yards.....		6,079
"	" 1875	"		11,967
"	" 1876	"		10,003
"	" 1877	"		34,621
Total Belgian pavement to 31st December, 1877,				62,670

Greenmount avenue, at its intersection with North Avenue, has been regraded and paved, making a desirable improvement.

An alteration and improvement has been made at the intersection of Eager and Cathedral streets, to conform to the line and grade of Eager street, which was opened and paved the past season.

Bayard street, between Washington avenue and south Paca street, has been graded and shelled, as per application of the owners of the property binding on it.

Pearl street, between Saratoga street and Pennsylvania avenue, has been rekerbed and repaved.

The repairs of paved streets have been pretty well kept up at a reduced cost as compared with last year, and they are in excellent condition in view of the fact that immense quantities of gas mains were laid by the Consumers' Mutual Gas Company.

Permit me to renew the recommendation contained on page 6, of my last annual report, that several of the great thoroughfares of the city ought to be paved with Belgian blocks.

REPAIRS AND CONSTRUCTION OF BRIDGES.

Necessary repairs have been made to all the city bridges. The trestle bridge over Harris' Creek, on the line of Boston street, was reconstructed and widened in a most substantial manner, in order that it should conform to the grade of Boston street, which was paved during the year. This work was charged to the account for repairs of bridges.

I again call the attention of the Mayor and City Council to the importance of closing the old Belvidere bridge, by an ordinance shutting up the Belvidere road, or, in case it is deemed inexpedient to close the road, to the passage of an ordinance directing the reconstruction of the bridges. I consider the bridge to be in a very unsafe condition.

A new iron bridge, resting on stone abutments, crossing the depot of the Baltimore and Potomac Railway Company, on the line of Argyle avenue, has been completed in a most substantial manner. In this connection I would say that, as Pritchard street (which is intended to carry the water of Argyle avenue away from the bridge) was not opened as a highway during the year. Argyle avenue could not be graded and paved as per ordinance, and in consequence the bridge has not been used. The condemnation of Pritchard street is now about completed, however, and the paving of the avenue will be done without delay, and the bridge brought into use.

A stone culvert on Bayard street, between the Washington road and Ridgeley street, and another on Oliver street, between Mine Bank lane and Belair avenue, have been built.

Repairs have been made to the flooring of North avenue bridge, to the drawbridge, and to the old bridges generally.

The contract for the abutments and wing walls for a bridge over Jones' Falls and the tracks of the Northern Central Railway Company on the line of Calvert street, was awarded some time ago, and the contractor, Mr. Daniel Hagerty, had commenced excavating preparatory to building the stone work. The work has, however, been suspended for the present, in view of some changes that are contemplated.

REPAIRS OF SEWERS AND CONSTRUCTION OF SEWERS.

Owing to the numerous rains during the season the old sewers sustained considerable damage at various points. In addition to the general repairs, I found it necessary, in several places, to enlarge and reconstruct the inlets leading into them, especially at the intersection of Franklin and Carey streets, and Franklin street and Woodyear alley. For several years past those points were subject to overflow, and much damage

was done to the adjacent property, which led to litigation and trouble. These inlets, with the connection made with Carey street sewer, ought to relieve the vicinity entirely. Nearly all the inlets on Schroeder's Run, from Lexington to Lombard street, should be rebuilt and enlarged during the coming season. These old sewers, as I have remarked in former reports, require constant watching and repairing, which will continue to increase until they have been rebuilt, or until others have superseded them of better form and alignment.

Several inlets and drains have been constructed in Boston street, in order to drain the street as now paved, the cost of which has been included in the account for repairs.

The sewers are now generally in good condition.

The new sewers known as Broadway sewer and "Pine street sewer," which were begun last year, have been completed. A full description of them was given in my last report. The total length of Broadway sewer is 5049 feet, and it varies in sections from a three foot circle at its head at the intersection of Wolfe and Hampstead streets, to an ellipse of seven by four feet at its outfall at the County wharf, foot of Broadway. I am pleased to say that it answers all its requirements.

The total length of Pine street sewer is 2100 feet. It is elliptical in form, with a diameter of six and five feet. This sewer was constructed in order to relieve the old Chatsworth run sewer from the intersection of Saratoga and Chatsworth streets to German street, where it again joins the old sewer, which between the points named runs through private property, to the great injury of the same. I find after the severe tests of the copious rains of last summer (one of which was equal to 2.75 inches per hour), that before this sewer can be made effective to its full capacity, the old sewer should be re-

constructed up Chatsworth to George street, and that the old sewer south of German street, at the outfall of the new one, should be enlarged, especially under the property between Lombard and King streets, sufficiently to receive the water from the new one. Until this is done the water will back into and overflow the new sewer, as happened last summer. I am pleased to say that, since this sewer was completed, the overflow on Pine street, at the corner of Lexington, has been much diminished. During the heavy rain referred to, the water did not reach the sidewalks, while on former and similar occasions it was a foot deep on the floor of the drug store at the corner.

Carey street sewer, which was commenced and completed during the year, is 3785 feet long. It starts from the old sewer (Schroeder's) at the intersection of Mulberry and Carey streets, and runs along Carey street until it connects again with the old sewer near the Baltimore and Ohio R. R. bridge, south of Ramsay street. Its dimensions are a seven foot circle for 114 feet, and a $6\frac{3}{12}$ circle to its head, or 2593 feet. The object in constructing this sewer is in a great measure to relieve that part of the old sewer which, from its want of capacity and irregular course, has been the cause of very serious damage to the property through which it runs. This damage had become so frequent of late years that its construction was absolutely necessary in order to avoid litigation. It is my opinion that there will be no further cause of complaint from persons living in this flooded district. This sewer also receives and carries to its outfall the large body of water which heretofore accumulated at the intersection of Baltimore and Carey streets.

As a further and much needed improvement, I would advise that a sewer, to be connected with this one at Carey street, be extended westwardly on Baltimore street for at least two

squares. In heavy rains this part of Baltimore street is filled with water.

I would again call your attention to the importance of condemning a street or line, more direct than its present circuitous course, from the outfall or end of this sewer to the Spring Gardens, before the property has been improved. Much expense would be avoided and a better alignment obtained by doing it now.

Pearl street sewer, and the extension of the same, running from the intersection of Saratoga and Pearl streets, up Pearl to Pennsylvania avenue, thence along Orchard street to Tessier street, and along Tessier to Biddle street, have been completed. Its length is 1830 feet. The lower part is elliptical in form, diameters five by four and a half feet, for 1095 feet, and a four and a-half foot circle for 735 feet. During even slight rains heretofore the beds of Pearl street, Pennsylvania avenue, Orchard and Tessier streets were filled with water to the tops of the kerbstones, but since this improvement they are very desirable streets, and property along their line must enhance in value.

Pennsylvania avenue sewer was commenced during the year and has just been completed. This sewer starts at the intersection of Pennsylvania avenue and Townsend street, runs down Pennsylvania avenue to Hoffman street, and along Hoffman street to Shields alley, where it connects with the head of Chatsworth run sewer, a length of 1855 feet. Its dimensions are a three foot circle for 360 feet, a four foot circle for 895 feet, and an ellipsis, six by four feet, for 600 feet. This sewer was constructed for the purpose of relieving the streets from the large body of surface water that collected in them. I would advise the extension of this sewer up Townsend street to Division street or Druid Hill avenue. The balance of the appropriation will be nearly sufficient to pay for the extension.

Harford Run sewer was put under contract late in the season, and owing to repeated rains has progressed slowly. This improvement is to extend from Eastern to Canton avenues 303 feet. The ordinance under which this work was begun contemplated its extension to the back basin, but upon mature reflection I would not advise its being arched farther than Canton avenue. Should it be decided to arch the lower part, it would be necessary to lower the grade so far below tide water, in order to enable the streets to pass over it, as to make it very objectionable; therefore, I think this part should be left open, with side walls and good bottom, instead of being arched. The side sewers connecting with this sewer at Eastern avenue ought to be extended along either side of Central avenue to a point south of Canton avenue.

RACE STREET SEWER.

The construction of this sewer was directed by the Mayor and City Council to prevent injury to adjacent property by the surface water during heavy rains and high tides. The old water course, which this sewer is intended to supersede, was very circuitous in its course, contracted and irregular in its dimensions, and in places running under houses. The difficulty in making this work a success arises from the fact that the grades of several streets in the neighborhood (established in the year 1813) are much too low, being in some places only about two feet above mid-tide. This matter was referred to in my last annual report, and I now repeat that parts of those streets require to be raised in order to complete the improvement. This sewer is eleven feet wide, part of it being open with side walls of stone, and part of it arched with brick where the ground is sufficiently high.

In consequence of an injunction having been laid against the construction of the sewer in Light street, from West to Lee street, the work was suspended after the drawings and specifications had been prepared. This sewer would have relieved that large accumulation of water at Race street, by diverting a portion to the basin.

The new sewers completed during the year are equal in length to 9820 feet, and comprise the following amounts of work:

Brick Masonry, 5381 cubic yards.

Stone Masonry, 10,404 cubic yards.

Excavation, 52,969 cubic yards.

IMPROVEMENT OF JONES' FALLS.

During the year we have completed the retaining walls with timber foundations on the west side, from Lombard street to Canton avenue, including the abutments for the bridges at Canton and Eastern avenues; also the west abutment of Pratt street bridge; the retaining walls, as far as practicable, on the east and west sides, between Lombard and Baltimore streets; the retaining wall on the east side, between Low street and St. Vincent's church; together with the retaining walls and abutments embraced in the alteration of the line of the falls lying between Hillen and Monument street bridges.

We have also completed new iron bridges on the lines of Canton and Eastern avenues and Bath street.

We have now under contract the abutments and iron bridges for Baltimore and Lombard streets and the iron bridge for Centre street, as well as the retaining walls and timber foundations on the east and west sides, from Canton avenue to the back basin at the mouth of the falls.

The work now finished and under contract on this improvement, with the exception of those portions between Gay and Hillen streets and several parts between Gay and Baltimore streets, where houses and other improvements are resting upon the old walls, embraces all that was contemplated by the ordinance under which the work has proceeded, with the exception of raising the grades of the streets in the "flooded district," and constructing the side-sewers, all of which can be accomplished during the coming year.

I feel called upon to state that on two occasions last summer and autumn, what is known as the "flooded district" would have been inundated, had it not have been for the new alignment of the falls and the raising of the bridge at Bath street.

LAMPS AND PILLARS.

During the year 102 gas lamps and 129 gasoline lamps have been put up, and 53 broken ones have been renewed. A large number of new lamps have been put up since the "index signs" were introduced, some three years ago. This is the season why so many lamps are without them. Arrangements are being made for "signs" of another pattern, of a more durable and improved character, and at less cost than the one now in use, which we expect to place on the lamps early in the season.

FLAG AND STEPPING STONES.

A very large number of crossings have been laid, greatly in excess of the number for any previous year, as per resolutions of the Mayor and City Council. A number of crossings have been also furnished with stepping stones.

CROSS STREETS.

The "cross street" account has materially increased, owing to the fact that an extraordinarily large amount of street paving and repairing was done during the present and past years, and much of last year's work was necessarily embraced and paid for in the present year.

MISCELLANEOUS.

Iron plates have been placed at the following intersections, as per resolutions of the Mayor and City Council.

Louisiana avenue, Greene and Lexington streets.
Central avenue, Gay and Madison streets.
Eastern avenue and Caroline street.
Camden and Sharp streets.
Canton avenue and Ann street.
Bond and Alice Anna streets.
Eutaw and Camden streets.
Lombard and High streets, and
Howard and Richmond streets.

East Baltimore street, from Streeper street to the eastern city limits, has been shelled; also the Washington road, and Loney's lane. A stone culvert under the bed of Oliver street, at the intersection of Burke street, was constructed during the the year.

Respectfully submitted,

J. H. TEGMEYER,

City Commissioner.

LIST OF TABLES ANNEXED TO THE CITY COMMISSIONER'S REPORT FOR 1877.

Table A exhibits the amount of appropriations, the amounts expended, and the balances due on the several appropriations.

Table B states the amounts of money required for the year ending 31st December, 1878.

Table C shows the number of streets and alleys paved, with the amount of paving done.

Table D exhibits the amount of superficial feet of paving in the city to 31st October, 1876, and the number of superficial feet paved to 31st December, 1876.

Table E exhibits the revenue received in the department from 1st November, 1876, to 31st December, 1877.

TABLE A.

Showing the amount of appropriations, and the balances due on the several appropriations, from 1st November, 1876, to 31st December, 1877.

ACCOUNTS.		Appropriations.	Amounts paid.	Amounts undrawn.	Amounts overdrawn.
Repairs of sewers	$10,000 00				
Paid Register	595 80				
		$10,595 80	9,805 92	789 88	
Flag and stepping-stones		24,168 38	24,192 40		24 02
Lamp-pillars and lamps		5,000 00	3,259 41	1,740 59	
Repairs of lamps	3,000 00				
Paid Register	83 43				
		3,083 43	2,456 44	626 99	
Repaving streets		4,000 00	3,345 48	654 52	
Repairs of paved streets		40,000 00			
Paid Register	200 73				
		40,200 73	40,136 42	64 31	
Repairs of bridges	6,000 00				
Paid Register	352 00				
		6,352 00	6,133 50	218 50	
Paving and repaving in front of City Property		1,000 00	852 34	147 66	

Incidentals	200 00	175 18	24 82	
Salaries	9,900 00	11,440 00		1,540 00
Paving and repaving cross streets	53,846 99	53,767 53	79 46	
Gasoline lamps	400 46	330 43	70 03	
Repairs of unpaved streets	1,500 00	1,416 54	83 46	
Improvement of Jones' Falls.....236,132 84				
Paid Register..... 22 19				
	236,155 03	236,155 03		
Mount Vernon Squares	150 00	150 00		
Broadway sewer, per Resolution 475, of 11th September, 1875	37,000 00	36,934 00	66 00	
Pratt street sewer, per Resolution 260, of 1st June, 1876	5,185 99	5,184 41	1 58	
Argyle avenue bridge, per Resolution 372, of 7th June, 1876	20,000 00	19,420 24	579 76	
Carey street sewer, per Ordinance 132, of 6th October, 1876	45,000 00	34,761 10	10,238 90	
Pine street sewer, per Resolution 128, of 21st March, 1876	17,305 68	16,644 28	661 40	
John street bridge	7,200 00	6,778 00	422 00	
Shelling East Baltimore street	267 80	174 00	93 80	
Paving beds of Paca and Green streets, between the markets, per Res. 355, of June 7, 1875	2,300 00	2,112 45	187 55	
Inlets into sewer in McMechin street, per Resolution 204, of 28th April, 1876	2,000 00	2,501 25		501 25
Amounts carried forward	$532,812 29	$518,126 35	$16,751 21	$2,065 27

TABLE A—Continued.

ACCOUNTS.	Appropriations.	Amounts paid.	Amounts undrawn.	Amounts overdrawn.
Amounts brought forward	$532,812 29	$518,126 35	$ 16,751 21	$2,065 27
Culvert across Bayard street, per Resolution 170, of 14th April, 1876	1,700 00	1,700 00		
Pearl street sewer, per Resolution 41, of 21st February, 1877	15,000 00	13,280 66	1,719 34	
Extension of Pearl street sewer, per Resolution 186, of 7th June, 1877	5,000 00	3,871 27	1,128 73	
Repairing Washington road, per Resolution 80, of 27th March, 1877	200 00	199 25	75	
Light street sewer, per Ordinance 12, of 13th March, 1877	20,000 00	75 00	19,925 00	
Pennsylvania avenue avenue sewer, per Ordinance 15, of 27th March, 1877	21,000 00	9,184 76	11,815 24	
Iron plates, per various resolutions	12,000 00	11,260 20	739 80	
Race street sewer, per Ordinance 16, of 27th March, 1877	9,000 00	2,451 13	6,548 87	
Calvert street bridge, per Ordinance 39, of 2d June, 1877	15,000 00	165 80	14,834 20	
Harford run sewer, per Ordinance 35, of 7th May, 1877	25,000 00	3,924 15	21,075 85	

Changing grade of Greenmount avenue, at North avenue, per Resolution 210, of 28th April, 1876	880 00	687 12	192 88	
Purchase of a piece of ground at Eager and Cathedral streets, per Resolution 185, of 7th June, 1877	360 00	59 40	300 60	
Shelling Loney's lane, per Resolution 137, of 27th April, 1877	300 00	262 80	37 20	
Culvert at intersection of Oliver and Burke streets	933 90	935 90		
Total	$659,188 19	$566,183 79	$95,069 67	$2,065 27

TABLE B.

Showing the amounts required for the fiscal year ending 31*st December*, 1878 (*Two months of year* 1877, *included*).

ACCOUNTS.	Amounts.
Repairs of paved streets	$50,000 00
" Bridges	6,000 00
" Sewers and Inlets	10,000 00
" Lamps	2,600 00
" unpaved streets	2,000 00
Lamp pillars and lamps	4,000 00
Flag and Stepping Stones	20,000 00
Paving in front of City property	2,000 00
Repaving streets	3,000 00
Paving and repaving cross streets	30,000 00
Incidentals	250 00
Salaries	10,500 00
Carey street sewer	10,238 90
Light street sewer	19,925 00
Pennsylvania avenue sewer	11,815 24
Race street sewer	12,250 00
Calvert street bridge (balance of appropriation)	139,834 20
Harford Run Sewer	21,075 85
	$355,489 19

TABLE C.

Statement of Streets, Lanes and Alleys paved, from 1st November, 1876, to 31st December, 1877.

NAMES OF STREETS, &c.	No. of Sq. Feet.	Price per Square Foot.	Names of Contractors.
Eden street, between Canton avenue and Lancaster street	25,914	9¾ cts.	P. Schneider & Bro.
Read street, between Calvert and North streets	14,075	6¼ "	John Haugh.
Hampstead street, between Eden street and Central avenue	3,973	7½ "	Louis Hax & Bro.
Spring street, between Canton avenue and Lancaster street	12,430	7¼ "	" "
Calhoun street, between Lanvale street and Lafayette avenue	14,339	7 "	McGovern & Anderson.
Point street, from the back basin to the harbor	11,183	7½ "	Louis Hax & Bro.
McCabe street, between West and Ostend streets.	3,924	7½ "	John Haugh.
Dock street alley, between Caroline and Dallas streets	2,061	7 "	Louis Hax & Bro.
Dallas street, between Lancaster and Thames streets	1,451	7½ "	" "
Aisquith street, between Lanvale street and North avenue	30,955	7 "	McGovern & Anderson.
Ostend street, between Light and William streets.	8,227	8 "	Franklin Bready.

McElderry street, between Chester and Burke sts.	41,320	7 cts.	P. Schneider & Bro.
Orleans street, between Chester and Patuxent sts.	27,669	6¾ "	" "
Castle street, between Federal and Lanvale sts...	9,897	8⅜ "	Randolph B. Mason.
Dock street, between Caroline street and the drawbridge	55,810	7¾ "	John Haugh.
Chew street, between Bond street and Broadway.	18,911	7 "	P. M. Holbrook.
Cross street, between Belt street and the harbor..	7,790	8 "	Franklin Bready.
Dover street, between Fremont street and Dawson alley	1,088	9 "	Leo. Eschbach.
Clement st., between Johnson and Lawrence sts.	80,296	8 "	P. Crowley & Co.
Foster alley, between Preston and Dolphin sts...	28,094	7 "	P. M. Holbrook.
Oliver street, between Belair avenue and Mine Bank lane	83,226	7½ "	McGovern & Anderson.
Hammond alley, between Eden and Spring sts...	5,520	6¼ "	P. Schneider & Bro.
Charles street, between West street and the middle branch	210,470	8½ "	Randolph B. Mason.
Stricker street, between Presstman and Baker sts.	19,029	6½ "	P. M. Holbrook.
Lemmon alley, between Stricker and Gilmor sts...	3,573	6½ "	Michael Flynn.
Eager street, between Wolfe and Washington sts.	13,951	7 "	P. Schneider & Bro.
Alice Anna street, between Central avenue and Exeter street	11,994	6¼ "	" "
Boston street, between Burke street and the eastern city limits	136,737	7 "	Louis Hax & Bro.
Lancaster street, between Central and E. Falls av.	67,297	6¼ "	P. Schneider & Bro.
Bruce alley, between Lexington and Fayette sts.	6,400	private contract	C. F. Miller.
Harlem avenue, between Fulton avenue and Kirby's lane..	5,850	"	I. M. Cone.

TABLE C.—Concluded.

NAMES OF STREETS, &c.	No. of Sq. Feet.	Price per Square Foot.	Names of Contractors.
Mount st., between Harlem and Edmondson avs.	17,750	private contract	P. M. Holbrook.
Eager st., between Cathedral street and Park av.	9,000	"	Leo. Eschbach.
Edmondson avenue, between Fulton avenue and Kirby's lane	17,700	"	P. M. Holbrook.
Total	1,007,904		
Statement of Streets, Lanes and Alleys paved with Belgian blocks, from 1st November, 1876, to 31st December, 1877.	No. of Sq. Yards	Price per Square Yard.	
Fayette street, between Eutaw and Howard sts.	730	$2 18½	McGovern & Anderson.
Baltimore street, between Greene and Harrison streets	21,292	2 49½	John Haugh.
Lombard street, between South and Hanover sts.	5,578	3 15	Camp & Loane.
West Falls avenue, between Pratt street and the harbor	7,021	1 95	Daniel Hagerty.
	34,621		

TABLE D.

Showing the Amount of Superficial Feet of Paving done up to December 31st, 1877.

Amount of superficial feet of paving completed up to 31st October, 1876	33,912,942
Amount of superficial feet of paving completed from 1st November, 1876, to 31st December, 1877	1,007,904
Total amount of superficial feet	34,920,846

TABLE E.

Statement showing the Revenue received in the Department of the City Commissioner from 1st November, 1876, to 31st December, 1877.

On What Account Received.	Amounts.
Vaults and Areas	$606 20
Sewers	595 80
Establishments of Grades and Boundaries	42 00
Lamp Pillars and Lamps broken	83 43
Repairs of Paved Streets	200 73
Repairs of Bridges	352 00
Improvement of Jones' Falls	22 19
	$1,902 35

ANNUAL REPORT

OF THE

Judges of the Appeal Tax Court

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

REPORT.

APPEAL TAX COURT,

Baltimore, January 1st, 1878.

To the Honorable the Mayor and

City Council of Baltimore:

GENTLEMEN:

A late ordinance of the City Council directs that, hereafter, the fiscal year of the City shall commence with the first day of January, and close on the 31st day of December.

In accordance with this direction, we submit our report for the preceding fourteen months, from November 1st, 1876, to December 31st, 1877.

The tabular statement, marked A, shows the taxable basis charged to the City Collector, from 1873 to 1877, (inclusive) with the assessments, collections and abatements thereon.

Table B., contains a detailed account by wards, of the number of building permits issued during the year, aggregating 1,744, of which number 1,189 were for the erection of new buildings, and 555 for improvements, or additions to old buildings.

Table C—The report of the Assessor—shows the number of new buildings and additional improvements, assessed by him, the wards in which the buildings and improvements are situated, and the aggregate assessed value of the same.

The assessments made by this Court, on the shares of capital stock of banks and other corporations, held by residents of the city and non-residents of the State, during the year, amounted to the sum of $25,597,870, a decrease, as compared with 1876, of $2,038,807.

The following extracts from our books show the amount of assessments on the same for the years named:

For 1871	$20,877,630
" 1872	20,982,792
" 1873	24,755,897
" 1874	29,698,424
" 1875	30,510,260
" 1876	27,636,677
" 1877	25,597,870

TABLE A.

Statement of property for each year that stands charged to the City Collector, December 31, 1877.

	City Direct.	Real Exempt.	Personal Exempt.
1873.			
Amount of assessment unpaid November 1st 1876.....	$1,170,668	$2,395,054	$252,663
Add new assessments.....	3,000	.....	.....
Add assessment as direct, having been abated as exempt.....	2,345,000	.....	.....
	3,518,668	2,395,054	252,663
Less abatements.....	330,058	.....	148,100
" amount collected upon.....	2,755,517	86,512	16,501
" abatements as exempt having been assessed as direct ...	.....	2,260,000	85,000
" amount remaining uncollected closed by limitation	433,093	48,542	3,062
	3,518,668	2,395,054	252,663
1874.			
Amount of assessment unpaid November 1st, 1876.....	12,390,039	3,331,439	374,906
Add new assessments.....	90,178	.....	.....

TABLE A—Continued.

	City Direct.	Real Exempt.	Personal Exempt.
Add assessment as direct, abated as exempt	2,750,000	.....	.....
Add amount of refunds to December 31st, 1877	24,300	.....	.....
	15,254,517	3,331,439	374,906
Less abatements	1,629,883	.....	315,625
Less amount collected upon	11,435,765	281,325	14,275
Less abatement as exempt, assessed as direct	.....	2,750,000	.....
Amount remaining uncollected	2,188,869	300,114	45,006
	15,254,517	3,331,439	374,906
1875.			
Amount of assessment unpaid November 1st, 1876	30,161,617	.....	.....
Add new assessments	105,114	.....	.....
Add amounts of refunds to December 31st, 1877	33,580	.....	.....
	30,300,311	.....	.....
Less abatements	2,127,563	.....	.....

Less amount collected upon	11,620,602		
Amount remaining uncollected	16,552,146		
	30,300,311		
1876.			
Amount of assessment unpaid November 1st, 1876	$104,197,407		
Add new assessments	95,426		
Add amounts of refunds to December 31st, 1877	64,304		
	104,357,137		
Less abatements	2,428,639		
Less amount collected upon	71,425,391		
Amount remaining uncollected	30,503,107		
	104,357,137		

TABLE A—Concluded.

	Real.	Personal.
1877.		
Amount of assessment as per ward books	$184,464,671	$57,725,581
" " Bank and Incorporated Co. Stock		25,597,870
Add new assessments	628,319	1,868,005
	$185,092,990	$85,191,456
Less abatements	$ 6,520,958	$ 7,658,147
Less amount collected upon	108,615,530	53,331,658
Amount remaining uncollected	69,956,502	24,201,651
	$185,092,990	$85,191,456

RECAPITULATION.—Amount for different years charged to City Collector, Dec. 31, 1877.

	City Direct.	Real Exempt.	Pers'l Ex'm't.
1874	$ 2,188,869	$300,114	$45,006
1875	16,552,146		
1876	30,503,107		
1877.....Real	69,956,502		
1877.....Personal	24,201,651		

TABLE B.

PERMITS.

The number of permits issued from Noeember 1, 1876, *to December* 31, 1877, *for new buildings and improvements, was seventeen hundred and forty-four,* (1744,) *and apportioned among the several wards as follows:*

Wards.	New Improvements.	Additional Improvements.	Total.
1	95	45	140
2	34	31	65
3	11	29	40
4	6	20	26
5	10	23	33
6	24	27	51
7	55	42	97
8	72	21	93
9	23	20	43
10	26	25	51
11	21	20	41
12	102	14	116
13	6	21	27
14	23	17	40
15	16	25	41
16	31	34	65
17	138	25	163
18	91	44	135
19	345	32	377
20	60	40	100
	1,189	555	1,744

TABLE C.

BALTIMORE, January 1, 1878.

To the Hon. Judges of the Appeal Tax Court:

I submit to your consideration, a report of new buildings and additional improvements, with the cash value of same as assessed by me, commencing November 1, 1876, and ending December 31, 1877, apportioned in the several wards as follows:

Wards.	Improvements.	Additional Improvements.	Cash Value.
1	80	37	$98,800
2	29	16	101,500
3	8	19	12,200
4	12	10	22,300
5	12	18	27,900
6	20	24	34,300
7	63	35	94,400
8	42	14	156,200
9	23	13	140,900
10	27	13	229,800
11	16	12	45,400
12	103	17	547,900
13	7	14	102,000
14	19	9	20,000
15	11	14	56,400
16	25	23	31,100
17	128	12	99,700
18	86	33	86,800
19	392	17	743,300
20	86	25	198,600
	1,189	375	$2,849,500

NOTE.—$296,600 of the above is taxable for 1877; the balance of the above will be taxable for 1878. I have likewise examined and assessed, with cash value, in the several wards, as follows: 99 improvements and 60 additional improvements, cash value, $177,500. This amount has been struck off the books as having been assessed by the State Assessors.

Yours respectfully,

THOS. GIFFORD, *Assessor.*

REFUNDS.

From November 1, 1876, to December 31, 1877, there have been two hundred and three (203) orders for the refunding of taxes, given generally to parties who have paid in error, either as double payments or on wrong property.

TRANSFERS.

From the 1st of August, 1877, to 31st of December, 1877, there have been two thousand eight hundred and seventy-one (2,871) transfers of property.

In view of the fact that the basis upon which the City and State taxes have been levied and collected this year, was furnished by the new assessment, it may be proper for us to say a word or two in reference thereto.

The work of the assessment and its review was delayed beyond the time anticipated for its completion. When returned to us, it was incomplete, many of the ward books were not added up. The real and personal valuations were added together in these books, showing signs of inaccuracy, entries in pencil, erasures, &c., suggesting doubt as to the grand total or basis presented by the Board of Control and Review.

It was deemed a matter of importance that said valuations should be added anew, as well to aggregate separately the real and personal property, as to obtain a correct total basis, in order that the requirements of the 34th section of the assessment law might be complied with.

The total basis returned by the Board of Control and Review was.....		$244,644,410
Add assessments made by the Appeal Tax Court,		28,094,194
Total.....		$272,738,604
Ascertained basis Real Estate.....	$184,464,671	
Personal Estate.....	57,725,581	
	$242,190,252	

Amounts brought forward....	$242,190,252	$272,738,004
Add assessments made by the Appeal Tax Court.....	28,094,194	
		$270,284,446
Difference.....		$2,454,158

The importance attached to this matter, will be at once recognized when it is known that the aggregate of accounts on the Collector's ledgers must agree with the amount of the basis as shown by the ward books of the assessors, and the assessments made by this Court.

If, therefore, we had charged the Collector with the amount as furnished us by the Board of Control and Review, the basis would have been a false one to the extent of this discrepancy—$2,454,158. The valuations of Real and Personal property have never, heretofore, been seperately kept, therefore the loss by abatements annually made, cannot be separately known.

The assessment, as now revised and completed by the Appeal Tax Court, shows the aggregate separate value of the Real and Personal property. Pains will be taken, hereafter, to so keep them, to the end that it may be shown to the City and State the loss to the basis under each head by the annual abatements made.

This, we respectfully submit, would show the importance of a general annual review or assessment of all property in the City, as well to repair this loss to the City and State as to meet out justice to the general taxpayer.

The dissatisfaction expressed by a large number of taxpayers, with the increased valuations or assessments made of their property by the Board of Control and Review, without notification of said increase, and, in many instances, after they had ascertained, either from the assessors, or the Board of Control and Review themselves, the valuations set by the former, and, supposing them final, were satisfied with the same—thus, practically, depriving them of the right of appeal conferred by the law—suggests to us the importance of some legislation

being had, which, restoring said right, will give them the desired relief.

We would also recommend that application be made to the Legislature to so amend Sec. 4, Chapter 340 of the Acts of 1876, as to exempt one hundred dollars worth of *personal* property. The law now reads, "No person who is not assessed to the sum of at least one hundred dollars, shall be required to pay any tax." But the assessment referred to by the law includes *Real* as well as Personal property.

APPEALS.

The number of appeals made to, and granted by this Court under the new assessment was 2,991, amounting to $14,179,105, as shown in the table of abatements, made for the year 1877, while the number of appeals dismissed, for the want of jurisdiction, not tenable, &c., was much larger. This work, alone, has imposed a large amount of labor upon all the officers of the Court, and has been performed, we trust, with that courtesy due by public servants, having a proper regard for the interest of the tax-payer, as well as that of the City and State.

The new assessment Act provides "That any owner of property claiming exemption from valuation and assessment, may file a petition in the City Court within thirty days after the return made by the Board of Control and Review, and further provides, that it shall be the duty of the said Court to hear the case upon the petition and answer * * * * at its then session, or at the earliest practicable day thereafter * *

We regret that the cases on which appeals have been taken under the provisions of this Act to the City Court, have not yet been taken up for adjudication, the amount involved being large, the Railroad property alone amounting to $17,378,706.

A large number of tax-payers, who are assessed for similar investments, are withholding payment of their taxes until the Courts render their decision. We recommend, in view of the delay arising from this cause, that such legislation may be had as will promote early adjustment of these cases.

ABATEMENTS.

An analysis of Table A shows that the amount of abatements made during the fourteen months, ending December 31st, 1877, was as follows:

From the basis of	1873	$ 914,313
" "	1874	1,944,508
" "	1875	2,127,563
" "	1876	2,428,639
" "	1877	14,179,105
	Total	$21,594,128

The foregoing aggregate of abatements, made during this year, is in excess of that for the year 1876 by $10,577,708. This comparatively large reduction of the taxable basis is attributable, in a great degree, to the abatements made from the new assessment of 1877.

To make this at once apparent and to justify the same, the reasons for making the abatements for 1877, with the amounts, are specified as follows:

For property of incorporated institutions taxable only on their shares of stock	$7,187,178
For stocks and bonds, private securities and investments, sold off, overvalued, exempt by law, and worthless	2,422,531
For stock and capital, furniture, vessels, horses, carriages, &c., overvalued and sold off	2,260,236
For charitable and benevolent institutions, Churches, Cemeteries, &c., exempt by law,	1,629,352
For errors in dimensions, in calculations, and for property taken for the beds of streets	319,024
For errors in the division and description, (the property being re-assessed)	117,506
For the property of persons removed out of the City and State	113,536
For judgments satisfied in whole or in part and worthless	57,591
For old buildings torn down or destroyed by fire,	57,176
For new improvements overvalued and not completed in time for taxation for 1877	14,975
Total	$14,179,105

INCORPORATED INSTITUTIONS.

An amendment to the Revenue laws should be proposed, which would require the payment *direct*, of all taxes from all institutions incorporated under the laws of Maryland.

First—By requiring said institutions to pay the taxes on the value of all property, held by, or belonging to them, in the city or counties, wherever the same may be located.

Second—By requiring said institutions to pay the taxes on the cash value of their shares of stock, in the city and counties wherever any of their shareholders may reside, after deducting the value of their property from the aggregate value of their shares of stock.

This method of taxing incorporated institutions would not only save a large amount of taxes annually lost to the city and counties under the present laws, but proper credit would be given to the assessed value of the real and personal property, respectively, in the city and counties wherever located, besides which, it would settle a vexed question now at issue between the city and counties, because of the counties persistency in compelling said institutions, whose property is located within their limits, to pay taxes on their property, regardless of the law, which now requires the taxes to be paid by the shareholders, on the capital stock held or owned by them in said institutions, and contrary, we hold, to a decision of the Court of Appeals of this State, that the shares of stock of such institutions, and not the property, should be taxed.

DOMICILE.

A number of persons doing business in Baltimore City, owning large amounts of personal property, consisting of Stocks, Bonds and other securities, escape taxation by the City upon the claim of residence in the counties. They reside at their country seats or farms, for a few months during the summer, and returning to the city in the fall, occupy places of business in the city during the entire year, yet claim to be

residents of the counties, and as such are there assessed upon personal estate. In this way millions of personalty escape the city levy. The law controlling this subject is the 51st Article of the Constitution, section 3, which declares "That the personal property of residents of the State shall be subject to taxation in the county or city where the party *bona fide* resides for the greater part of the year * * * *." The construction put upon this law by the taxpayers and by the county authorities has been acquiesced in, although the fact is notorious that the actual place of residence for the greater part of the year of some of these people is in the city, and their personal estate is located therein, and entitled, with their persons, to the protection which the city laws afford.

This subject is one of great importance to the city, and demands a thorough examination. This court earnestly recommends it to the Council. In the State of New York this matter is regulated by law as follows: "Every person shall be assessed in the town or ward where he resides when the assessment is made, for all personal estate owned by him, including all personal estate in his possession or under his control as agent, trustee, guardian, executor or administrator; and in no case shall property so held under either of these trusts be assessed against any other person; and in case any person possessed of such personal estate shall reside during any year in which taxes may be levied in two or more counties, towns, or wards, his residence for the purpose and within the meaning of this section, shall be deemed and held to be in the county, town, or ward in which his principal business shall have been transacted.

Respectfully submitted,

WM. W. ORNDORFF,
E. A. GIBBS,
C. W. LEWIS,
Judges.

H. P. MOWINCKEL, *Chief Clerk.*
WM. ROBERTSON, *Asst. Clerk.*

ANNUAL REPORT

OF THE

REGISTER OF THE CITY,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE

FISCAL YEAR ENDING DEC. 31, 1877.

Register's Report.

Office of the Register of the City,
Baltimore, January 2d, 1878.

To the Honorable the Members of the
First and Second Branches of the City Council:

Gentlemen:

Ordinance No. 57, approved June 29, 1877, having terminated the fiscal year of the corporation on December 31 of each year, instead of October 31, as formerly, the Register of the City in compliance with his duty, as prescribed by section 6 of Article 37, Baltimore City Code, herewith presents "his account of all monies received and expended by him," from November 1, 1876, to December 31, 1877, both days included, a period of fourteen calendar months; a statement of the estimated receipts and disbursements for the current fiscal year, and tables showing the funded and guaranteed debt of the city as of December 31, 1877; the condition of the sinking fund for the redemption of the five million loan to the Baltimore and Ohio Railroad Company, and the sinking fund for the redemption of the bonds of the Western Maryland Railroad Company, guaranteed by the City of Baltimore.

RECEIPTS.

The aggregate receipts from October 31, 1876, to December 31, 1877, amount to $12,176,736 81, and are derived from the following sources:

From City Collector, levy of 1877, and arrearages	$4,649,193 12
From City Collector, widening, opening and closing streets	147,516 42
From City Collector, grading and paving streets	128,979 49
From City Collector for advertising	759 56
From Public Schools, State tax and tuition fees	214,134 09
From Baltimore and Ohio Railroad Company dividends	422,500 00
From Baltimore and Ohio Railroad Company interest on five million loan	375,000 00
From temporary loans	4,259,159 00
From sale of Jones' Falls 1900 loan 6 per cent	152,017 75
From sale of permanent water 1894, 5 per cent. loan	886,600 00
From Water Board	562,196 00
From sale of City property	13,604 82
From bills receivable, "Market stalls"	15,174 81
From Government tax withheld by Baltimore and Ohio Railroad Company	13,500 00
From Park Commission	97,741 64
From City Passenger Railway Companies, for Park sinking fund	10,370 53
Amount carried forward	$11,948,447 23

Amount brought forward	$11,948,447 23
From ordinary sources of revenue	212,049 58
From opening and widening streets, "sales"	16,240 00
	$12,176,736 81
Cash balance, October 31, 1876	308,334 70
	$12,485,071 51

DISBURSEMENTS.

The aggregate disbursements from October 31, 1876, to December 31, 1877, are as follows:

For interest on stock debt	$1,505,470 47
For temporary loans	3,484,659 00
For Public Schools, expenses	711,957 52
" " " new building	89,177 20
" " " repairs	19,438 95
For expenses of Courts, fines, removed cases and judgments and suits	375,746 86
For sinking funds	93,101 59
For City Poor	175,083 12
For State Police	683,000 00
For Park Commission	166,265 99
For Permanent Water Supply	1,094,932 67
For Harbor Board	243,340 32
For Health Department	301,437 41
For Water Board	671,961 10
For Fire Department and Telegraph	264,821 32
For City Commissioners Department	327,921 14
For Improvement of Jones' Falls	278,588 18
Amount carried forward	$10,486,902 84

Amount brought forward....	$10,486,902 84
For interest paid for Western Maryland Railroad Company.....	142,365 00
For closing, opening and widening streets.....	329,862 92
For grading and paving streets.....	259,997 99
For general expenditures.....	962,266 22
	$12,181,394 97
Cash balance, December 31, 1877.....	303,676 54
	$12,485,071 51

REQUIREMENTS FOR THE CURRENT YEAR.

The estimated disbursements for the current fiscal year as detailed in statement marked B amount to.....	$6,016,931 05
And the receipts as per statement marked C,	1,538,245 00
Leaving the amount to be raised by taxation,	$4,478,686 05

An increase over the estimates of the last fiscal year of $860,192 49. This excess arises out of the decrease of revenne from Baltimore and Ohio Railroad dividends, increase in the stock debt of the Corporation, and increased estimates by detailment, and from the fact that while the levy of last year was made for only twelve months, the disbursements were for fourteen months, owing to the change in the ending of the fiscal year from October 31 to December 31, after the levy was made. No provision was made for these two months, and the city being obliged to meet its necessary obligations caused a consequent increase in the floating debt, or what is known as "existing claims."

The taxes in arrears, as estimated by the Collector of Taxes, amount to.....	$2,535,772 17
And the balance of "existing claims," as shown in statement B of this report, amount to.....	1,342,721 19
Leaving an apparent balance, applicable to current expenses, of.....	$1,193,050 98

If the whole amount of taxes in arrears are collected during the year, this statement might be relied upon as a correct exhibit of the present condition, but inasmuch as experience shows that the collection of the whole amount can not under existing laws be made within the period named, the calculations are necessarily made upon a different basis, or in other words, the tax payers will be called upon for provision of $4,478,686 05 instead of $3,285,676 00.

FUNDED AND GUARANTEED DEBT.

The total Funded and Guaranteed Debt amounts to.....	$34,092,965 17
And the productive or interest bearing assets to.....	24,835,519 72
Leaving the sum of.....	$9,257,445 45

The net amount of Funded and Guaranteed Debt for which the tax payers are liable for the interest is $19,741,853 48. See appendix to table A, an increase over last year of $2,952,620 57, the annual interest upon which increase is $132,448 00.

Since my last annual statement the funded debt of the City has increased $1,021,900 by an issue of $135,300 of 6 per cent. stock of 1900 for the improvement of Jones' Falls, and

$886,600 of 1894 five per cent. stock for a permanent supply of water from the Gunpowder river. The entire amount of the 5 per cent. water stock was taken by the Commissioners of Finance at par, the 6 per cent. stock was sold on the market, realizing $152,017 75. To the annual interest on these issues of stock $52,448 add $130,000, decrease in dividends from the Baltimore and Ohio Railroad Company, making $182,448, from which deduct $50,000 the amount annually saved the City by the conversion of the 5,000,000 water 1875 six per cent. stock into 5 per cent. stock, we have the amount $132,448.

The York and Cumberland Railroad Company bonds, guaranteed by the City, were paid at maturity, January 1, 1877, and the mortgage on the road released, thus decreasing the guaranteed debt of the City $500,000.

FIVE MILLION LOAN SINKING FUND.

The sinking fund for the redemption of the five million loan to the Baltimore and Ohio Railroad Company, due in 1890, now amounts to the sum of $1,958,623 57, an increase since last report of $109,745 47.

WESTERN MARYLAND RAILROAD SINKING FUND.

The sinking fund for the redemption of the bonds of the Western Maryland Railroad Company, guaranteed by the City, has increased $8,579; the present value of the fund is $166,180 59.

I respectfully refer you to the report of the Commissioners of Finance for the condition of the various sinking funds belonging to the City, and also to the accompanying tables:

Table A is a statement of the public debt of the City.

Table B is an estimate of requirements for the current fiscal year.

Table C is an estimate of receipts for the current fiscal year.

Table D is a detailed statement of the receipts and disbursements from October 31, 1876, to December 31, 1877.

Table E shows the aggregate monthly receipts and disbursements.

Table F shows the condition of the five million loan sinking fund.

Table G shows the condition of the Western Maryland Railroad sinking fund.

Respectfully submitted,

JOHN A. ROBB,

Register of the City.

STATEMENT A.

Statement of Funded Debt, December 31, 1877.

Loan.	Rate.	When Redeemable.	Amount.
Court House	5 per cent.	At pleasure after the year 1860	$87,900 00
Consolidated	5 "	" " " 1885	941,161 54
Consolidated	6 "	" " July 1st, 1890	7,306,546 22
Public Park	6 "	" " Sep. 1st, 1890	555,566 25
Exempt	6 "	" " " 1893	410,353 87
Funding	6 "	" " Feb. 1st, 1894	2,000,000 00
Water	6 "	" " July 1st, 1894	263,000 00
Water	5 "	" " " 1894	1,286,600 00
Funding	6 "	" " " 1900	800,000 00
Water	5 "	" " " 1916	5,000,000 00
City Hall	6 "	July 1st, 1884	1,000,000 00
One Million	6 "	January 1st, 1886	1,000,000 00
Valley Railroad	6 "	October 31st, 1886	1,015,300 00
Five Million	6 "	January 1st, 1890	5,000,000 00
Patterson Park Extension	6 "	March 8th, 1892	200,000 00
Consolidated	6 "	September 1st, 1893	2,211,068 05
Park Improvement	6 "	January 1st, 1895	185,723 80
City Hall	6 "	April 15th, 1900	1,000,000 00
Jones' Falls	6 "	April 9th, 1900	609,200 00
W. Md. Railroad	6 "	January 1st, 1902	1,000,000 00
City Hall	6 "	March 7th, 1902	500,000 00
Water		No interest allowed	227,813 44
Over-due Stock		" "	732 00
		Total Funded Debt	$32,600,965 17

The endorsements are as follow :

Western Maryland R. R. Co	$1,375,000 00	
Union R. R. Co	117,000 00	
		$1,492,000 00
		$34,092,965 17

From which deduct

Water Loan, 5 per cent. 1916, interest paid by revenue derived from water rents	$5,000,000 00	
Park Loan, interest paid by City Passenger Railway Companies	755,566 25	
Cash in bank for redemption of Water 1875 stock	227,813 44	
		$5,983,379 69
		$28,109,585 48

Amount brought forward			$28,109,585 48
Against which the City holds productive assets as follow :			
Mortgage on Baltimore and Ohio R. R. Co		$5,000,000 00	
" Union R. R. Co		117,000 00	
32,500 shares Baltimore and Ohio Railroad Stock, paying a dividend of 6 per cent. capitalized at 6 per cent		3,250,000 00	
Value of Sinking Funds		8,640,411 69	
550 shares Baltimore and Reisterstown Turnpike Company Stock, valued at		2,750 00	
625 shares Baltimore and Yorktown Turnpike Company Stock, valued at		3,150 00	
120 shares Baltimore and Havre de Grace Turnpike Company Stock, valued at		4,000 00	
137 shares Baltimore and Frederick Turnpike Company Stock, valued at		206 00	
Market houses producing a yearly rental of	$45,000 00		
Improved wharf property, producing a yearly rental of	45,000 00		
Real Estate, producing a yearly rental of	20,077 34		
	$110,077 34		
Capitalized at 6 per cent		1,834,622 34	
			18,852,140 03
			$9,257,445 45
And the following assets unproductive :			
Mortgage on Western Md. R. R. Co		$2,375,000 00	
Interest coupons paid for West. Md. R. R. Co		938,532 57	
10,000 shares Valley Railroad Co. of Virginia		1,000,000 00	
4,000 shares Western Maryland Railroad Co		200,000 00	
7,600 shares Baltimore and Susquehanna Tide Water Canal Company Stock, par $50		380,000 00	
312 shares Baltimore and Hall Springs Railway Company's Stock, par $20		6,240 00	
			$ 4,889,772 57

Besides other property, such as—

Court Houses, Record Office, City Hall, Jail, Police Stations, Fire Engine Houses and Apparatus, School Houses, Almshouse, Steam Tugs, City Yard, Marine Hospital Grounds, Public Parks, &c.

APPENDIX.

From the total Funded and Guaranteed Debt bearing interest		$33,864,419 73
Deduct the following, the Interest being provided for:		
By the Baltimore and Ohio Railroad Co. on	$5,000,000 00	
By the dividend on 32,500 shares Baltimore and Ohio Railroad Stock, being the interest on	3,250,000 00	
By the City Passenger Railway Companies on	755,566 25	
By the Water Board, (from rents) on	5,000,000 00	
By the Union Railroad Co. on	117,000 00	
		14,122,566 25
Leaving the amount on which interest is provided for by taxation		$19,741,853 48

viz: $12,426,191 94 interest at 6 per cent.
7,315,661 54 " 5 "
$19,741,853 48

STATEMENT B.

The existing claims against, and estimated expenses of the City, for the fiscal year ending December 31st, 1878, against which receipts from uncollected taxes and other specified sources apply, are as follows:

EXISTING CLAIMS.

Temporary loans		$1,549,500 00	
Balance due Water Board		305,099 31	
" Park Board		4,182 73	
" Jones' Falls loan		29,809 77	
		$1,888,591 81	
Less cash in bank	$303,676 54		
" amount due by Perm't Water loan	105,818 44		
" amount due by property holders for grading and paving streets	126,375 64		
" bills receivable,	10,000 00		
		$545,870 62	
			$1,342,721 19
Taxes in arrear	$2,535,772 17		

ESTIMATED REQUIREMENTS FOR THE FISCAL YEAR 1878.

One year's interest on Court House 5 per cent. stock	$4,395 00	
One year's interest on Consolidated 5 per cent. stock	47,058 05	
Amount carried forward	$51,453 05	$1,342,721 19

STATEMENT B.—Continued.

Amount brought forward...	$ 51,453 05	$1,342,721 19
One year's interest on Water, 1894, 5 per cent. stock.....	64,330 00	
One year's interest on Water, 1916, 5 per cent. stock.....	250,000 00	
One year's interest on Consolidated, 1890, 6 per cent. stock,	438,392 76	
One year's interest on Public Park, 1890, 6 per cent. stock,	33,333 96	
One year's interest on Exempt, 1893, 6 per cent. stock.....	24,621 24	
One year's interest on Funding, 1894, 6 per cent. stock.....	120,000 00	
One year's interest on Water, 1894, 6 per cent. stock.....	15,780 00	
One year's interest on Funding, 1900, 6 per cent. stock.....	48,000 00	
One year's interest on City Hall, 1884, 6 per cent. stock.....	60,000 00	
One year's interest on City Hall, 1900, 6 per cent. stock.....	60,000 00	
One year's interest on City Hall, 1902, 6 per cent. stock.....	30,000 00	
One year's interest on One Million, 1886, 6 per cent. stock...	60,000 00	
One year's interest on Valley R. R., 1886, 6 per cent. stock,	60,918 00	
One year's interest on Five Million, 1890, 6 per cent. stock...	300,000 00	
Amount carried forward...	$1,616,829 01	$1,342,721 19

STATEMENT B.—Continued.

Amount brought forward...			$1,616,829 01	$1,342,721 19
One year's interest on Patterson Park, 1892, 6 per cent. stock,			12,000 00	
One year's interest on Consolidated, 1893, 6 per cent. stock,			132,664 08	
One year's interest on Park Improvement, 1895, 6 per cent. stock.....			11,143 44	
One year's interest on Jones' Falls, 1900, 6 per cent. stock,			36,552 00	
One year's interest on Western Md. R. R., 1902, 6 per cent. stock.....			60,000 00	
One year's interest on Western Md. R. R. Guaranteed Bonds,			82,500 00	
			$1,951,688 53	
DEDUCT:				
Interest on Five Million loan received from B. & O. R. R. Company.....	$300,000 00			
Interest on Public Park and Patterson Park loans, receiv'd from City Passen'r Railway Companies.....	45,333 96			
Am't car'd for'd	$345,333 96			$1,342,721 19

STATEMENT B.—Continued.

Am't bro't for'd	$345,333 96	$1,951,688 53	$1,342,721 19
Received from Water Rents	300,000 00		
Received Dividends B. & O. R. R. Co.,	195,000 00		
		$840,333 96	
			$1,111,354 57
PUBLIC SCHOOLS.			
Salaries of teachers and officers,		$450,000 00	
Rents and ground rents		30,000 00	
Books and stationery		40,000 00	
Furniture		12,000 00	
Fuel		18,000 00	
Repairs and cleaning		8,000 00	
Heating apparatus and repairs		10,000 00	
Printing, incidentals, supplies		10,000 00	
Evening schools		6,000 00	
Colored schools		60,000 00	
			$644,000 00
STATE POLICE.			
Salaries of officers and men			$598,000 00
HEALTH DEPARTMENT.			
Cleaning streets and removing garbage		$169,000 00	
Contract for removal of garbage,		13,500 00	
General health		12,000 00	
Nuisance and sewers		6,500 00	
Amount carried forward		$201,000 00	$3,696,075 76

STATEMENT B.—Continued.

Amount brought forward...	$201,000 00	$3,696,075 76
Salary account.....	17,700 00	
Cleaning cess-pools in public schools.....	2,500 00	
Marine Hospital.....	15,000 00	
		$236,200 00
SUPERVISORS OF ELECTIONS.		
Advertising, Judges and places for voting.....	$1,500 00	
Stationery.....	500 00	
Salaries.....	1,000 00	
Miscellaneous	500 00	
		$3,500 00
CITY LIBRARY.		
Stationery for the different departments.....		$10,000 00
FIRE DEPARTMENT.		
Salaries.....	$110,850 00	
Apparatus.....	5,500 00	
Repairs of apparatus.....	10,000 00	
Accidents.....	1,800 00	
Feed.....	8,000 00	
Furniture.....	1,000 00	
Harness and repairs.....	1,200 00	
Horse-shoeing.....	1,500 00	
Hose.....	5,000 00	
Horses.....	3,500 00	
Amount carried forward....	$148,350 00	$3,945,775 76

STATEMENT B.—Continued.

Amount brought forward...	$148,350 00	$3,945,775 76
Gas	1,000 00	
Medicines	100 00	
Office expenses, including pay of Messenger	600 00	
Water rent	388 00	
Washing	1,350 00	
Fuel	2,500 00	
Bells	500 00	
Oils, grease, paints, &c	1,250 00	
Miscellaneous	850 00	
Insurance premium	2,250 00	
Ground rents	1,200 00	
Salaries of Fire Alarm Telegraph operators	8,400 00	
Repairs of Fire Alarm Telegraph,	500 00	
Batteries " "	3,820 00	
Equipment of new Truck Co.	2,800 00	
		$175,858 00
GENERAL EXPENDITURES.		
City Council, salaries of members and expenses	$55,000 00	
City Collector's office, salaries and expenses	40,000 00	
Elections	8,000 00	
General licenses	1,000 00	
Salaries	63,400 00	
Lamplighters	44,000 00	
Discount on taxes	120,000 00	
Amount carried forward....	$331,400 00	$4,121,633 76

STATEMENT B.—Continued.

Amount brought forward...	$331,400 00	$4,121,633 76
Gas	180,000 00	
Gasoline lamps	19,000 00	
General expense	3,500 00	
Public printing	6,000 00	
Ice boat	10,000 00	
Mayoralty	2,000 00	
Ground rent of Perkins' Spring Square	2,052 00	
Ground rent of Riverside Park,	3,771 00	
Broadway Squares, balance of appropriation	133 73	
Perkins' Spring Square, balance of appropriation	553 13	
Eastern Spring Square, balance of appropriation	590 22	
Jackson Square, balance of appropriation	292 32	
Mount Vernon Squares, balance of appropriation	2,050 00	
Lafayette Square, balance of appropriation	136 03	
Franklin Square, balance of appropriation	1,228 96	
Madison Square, balance of appropriation	301 85	
Eutaw Squares, balance of appropriation	101 19	
City property, ground rents, &c.	2,000 00	
Amount carried forward....	$565,110 43	$4,121,633 76

STATEMENT B.—Continued.

Amount brought forward...	$565,110 43	$4,121,633 76
State tax on Water Loans.....	9,000 00	
Ringing Mechanics' bells.....	200 00	
Harlem Square, balance of appropriation.....	965 36	
Baker's Circle, balance of appropriation.....	100 00	
Plugs and pumps.....	5,000 00	
Druid Hill and Patterson Parks,	38,500 00	
		$618,875 79
INSPECTOR OF PUBLIC BUILDINGS.		
Repairs of public school houses, balance.....	$505 95	
Repairs of public school houses, bills unpaid.....	1,887 04	
Repairs of public school houses, required for 1878.....	20,000 00	
Repairs of Engine-houses, balance.....	2,808 69	
Repairs of Engine-houses, bills unpaid.....	570 96	
Repairs of Engine-houses, required for 1878.....	3,500 00	
Repairs of other City property, balance.....	301 91	
Repairs of other City property, bills unpaid.....	6 00	
Amount carried forward....	$29,580 55	$4,740,509 55

STATEMENT B.—Continued.

Amount brought forward...	$29,580 55	$4,740,509 55
Repairs of other City property, required for 1878.....	4,000 00	
Building grammar school house No. 22, balance...	1,046 35	
Building grammar school house No. 12, balance.....	10,649 14	
Building primary school house No. 6, balance.....	11,129 20	
Building colored school house No. 7, balance.....	15,237 56	
Salaries.....	3,000 00	
Keeping horse at livery.....	300 00	
		$74,942 80
CITY POOR.		
Bayview Asylum.....	$70,000 00	
Old Defenders, war 1812.....	300 00	
Widows and orphans, war 1812,	200 00	
Transportation of poor to homes,	1,500 00	
Dispensaries, balance of appropriation	1,800 00	
Dispensaries, required for 1878...	7,200 00	
St. Mary's Industrial School.....	20,000 00	
Mount Hope Retreat.....	5,000 00	
Indigent sick at universities.....	10,000 00	
Deaf and dumb at Frederick.....	850 00	
Maryland Hospital for Insane....	20,000 00	
Maryland Hospital for Insane, balance due.....	5,472 67	
Amount carried forward....	$142,322 67	$4,815,452 35

STATEMENT B.—Continued.

Amount brought forward...	$142,322 67	$4,815,452 35
House of Refuge.....	20,000 00	
House of reformation for colored children.....	20,000 00	
Conveying children to House of Reformation for Colored Children.....	500 00	
Insurance, Bay View Asylum.....	862 50	
		$183,685 17

CERTAIN EXPENSES.

Baltimore City Court.....	25,000 00	
Court of Common Pleas.....	25,000 00	
Circuit Court.....	10,000 00	
Superior Court.....	22,000 00	
Coroners.....	1,850 00	
Fines.....	1,000 00	
Judgments and suits.....	10,000 00	
Jail visitors.....	50,000 00	
Orphans' Court.....	8,100 00	
Magistrates salaries.....	12,600 00	
Removed cases.....	10,000 00	
Registration.....	25,000 00	
Supreme Bench.....	2,500 00	
		$203,050 00

CRIMINAL COURT.

Expenses.....	$90,000 00
Amount carried forward....	$5,292,187 52

STATEMENT B.—Continued.

Amount brought forward...		$5,292,187 52
CITY COMMISSIONERS DEP'T.		
Repairs of paved streets.....	50,000 00	
" of bridges.....	6,000 00	
" of sewers and inlets.....	10,000 00	
" of lamps.....	2,600 00	
" of unpaved streets.....	2,000 00	
Lamp pillars and lamps.....	4,000 00	
Flag and stepping stones	20,000 00	
Paving in front of city property,	2,000 00	
Repaving streets.....	3,000 00	
Paving and repaving cross sts....	30,000 00	
Incidentals.....	250 00	
Salaries.....	10,500 00	
Carey street sewer, balance	10,238 90	
Light street sewer, balance.....	19,925 00	
Pennsylvania Av. sewer, balance,	11,815 24	
Race street sewer, balance.....	12,250 00	
Calvert street bridge, balance....	139,834 20	
Harford Run sewer, balance.....	21,075 85	
		$355,489 19
COURT HOUSE AND RECORD OFFICE.		
Salary of Superintendent.....	$1,200 00	
Salary of Watchman.....	1,000 00	
Cleaning court rooms	864 00	
Ice for court and jury rooms.....	160 00	
Repairs of furniture.....	40 00	
Buckets, brushes, brooms, &c....	25 00	
Amount carried forward....	$3,289 00	$5,647,676 71

STATEMENT B.—Continued.

Amount brought forward...	$3,289 00	$5,647,676 71
Repairing stoves, coal hods, &c..	75 00	
Gas bills and repairs of fixtures..	175 00	
Water rent.....	24 00	
Removing ashes.....	40 00	
80 tons of coal and 7½ cords of wood, and stowing.....	425 00	
Incidental expenses.....	25 00	
Whitewashing rooms and halls...	25 00	
Carpets, oil cloth, matting and laying same.....	50 00	
		$4,128 00
CITY HALL.		
Brooms, brushes, buckets, feather dusters, soap, &c.....	400 00	
500 tons coal at $5.40.....	2,700 00	
Covering chandeliers, mirrors, &c.	200 00	
Incidental expenses.....	500 00	
Ice.....	333 00	
Winding up Town Clock, Police and Fire Alarm Striker.....	500 00	
Removing ashes, &c.....	250 00	
Repairs to furniture, gas and water fixtures.....	750 00	
Gas.....	5,411 50	
Gas bills outstanding.....	985 50	
Repairs to fire alarm striker.....	45 00	
New furniture, carpets, oil cloth, &c.....	1,000 00	
Amount carried forward....	$13,075 00	$5,651,804 71

STATEMENT B.—Continued.

Amount brought forward...	$13,075 00	$5,651,804 71
One laborer.....	600 00	
Cleaning rooms, corridors, &c....	4,800 00	
		$18,475 00

CITY AND CIRCUIT COURT HOUSE.

Salaries of janitor and watchman	$1,900 00	
Fifty tons of coal.....	300 00	
Stowing coal.....	20 00	
Three cords kindling wood.....	20 00	
Gas.....	100 00	
Cleaning courts, offices, &c.....	500 00	
Glazing.....	20 00	
Repairing stoves.....	70 00	
Cleaning carpets.....	60 00	
Brooms, buckets, &c.....	25 00	
Water rent.....	20 00	
Hauling coal and ashes.....	25 00	
Lime and whitewashing.....	20 00	
Incidentals.....	100 00	
Ice for courts and offices.....	100 00	
Awning for Circuit Court rooms,	30 00	
		$3,310 00

HARBOR BOARD.

Harbor improvement and general expenses.....	$105,000 00	
Repairs of wharves.....	5,000 00	
Building ice boat—balance of appropriation.....	119,912 10	
Amount carried forward....	$229,912 10	$5,673,589 71

STATEMENT B.—Concluded.

Amount brought forward...	$229,912 10	$5,673,589 71
Repairs of wharves—balance of appropriation.....	2,533 41	
Harbor appropriation — balance of appropriation...	685 84	
		$233,131 35
OPENING STREETS.		
Orleans street.....	$74,332 46	
McKim street.....	3,981 72	
Decatur street.....	1,858 60	
Porter street.....	2,690 00	
Pitcher street.....	17,927 14	
Washington street, north of Eager.....	9,420 07	
		$110,209 99
		$6,016,931 05

STATEMENT C.

Estimated Receipts from Taxes in arrear and other sources of Revenue for the fiscal year, ending December 31st, 1878.

Overdue taxes, estimated receipts during the year 1878	$1,137,500 00	
Public schools from State	160,000 00	
" " tuition fees	50,000 00	
Fines	4,000 00	
Jail Visitors	1,400 00	
Magistrates	1,000 00	
Removed cases	3,000 00	
Bayview Asylum	1,200 00	
Marine Hospital	6,000 00	
Sale of refuse	1,500 00	
Fire Department	2,700 00	
General license	30,000 00	
Theatricals	1,800 00	
Wharfage	30,000 00	
Permits for sheds, signs, &c	2,500 00	
" vaults and areas	500 00	
Auction duties	12,000 00	
City property	1,300 00	
City Seal	500 00	
Rent of market stalls	50,000 00	
Turnpike dividends	1,100 00	
Interest on taxes in arrears	40,000 00	
State of Maryland tobacco warehouse wall	245 00	
		$1,538,245 00

STATEMENT D.

NAMES OF ACCOUNTS.	FACE OF LEDGER. DR.	FACE OF LEDGER. CR.	Appropriations	Cash received from Collector.	Cash received from other sources.
Baltimore City Court	$23,753 45	$26,000 00	$26,000 00		
Coroners	1,850 00	2,300 00	2,300 00		
Court of Common Pleas	24,204 31	25,000 00	25,000 00		
Circuit Court	11,008 25	10,000 00	10,000 00		
Fines	326 95	4,757 25	1,000 00		3,757 25
Judgments and Suits	18,322 98	4,000 00	3,000 00		1,000 00
Jail Visitors	58,700 53	54,654 31	52,657 26		1,997 05
Orphans' Court	9,391 67	8,183 00	8,183 00		
Magistrates	18,130 50	17,015 25	16,000 00		1,015 25
Removed Cases	14,871 61	25,100 40	16,000 00		9,100 40
Registration	25,128 43	27,314 55	27,314 55		
Superior Court	22,734 06	22,225 00	22,225 00		
Supreme Bench	2,650 00	2,800 00	2,800 00		
Certain Expenses		229,247 98		229,247 98	
New Assessment	53,273 46	54,926 00	54,922 00		4 00
Criminal Court	91,400 66	114,571 00	85,300 00	29,271 00	
Public Schools	656,376 41	1,291,921 08	620,000 00	476,234 77	195,686 31
Colored "	55,581 11	18,447 78			18,447 78
Bayview Asylum	69,601 18	67,030 21	65,000 00		2,030 21
City Poor	5,325 10	145,933 76		140,514 66	5,419 10
Transportation of Poor to Homes	1,073 04	2,001 50	2,000 00		1 50
Dispensaries	5,400 00	7,200 00	7,200 00		
Maryland Lying-In Asylum	1,267 50	1,267 50	1,267 50		
St. Mary's Industrial School	16,277 45	16,277 45	16,277 45		
Mt. Hope Retreat	6,877 88	5,000 00	5,000 00		
Washington University Hospital	6,227 29	10,000 00	10,000 00		
University of Maryland	5,445 10				
Deaf and Dumb at Frederick	836 25	850 00	850 00		

Maryland Hospital for Insane	14,527 33	20,000 00	20,000 00		
House of Refuge	20,000 00	20,000 00	20,000 00		
" Reformation for Colored Children	20,000 00	20,500 00	20,500 00		
Widows and Orphans War 1812	200 00	200 00	200 00		
Old Defenders, "	300 00	300 00	300 00		
Insurance of Bayview Asylum	1,725 00	862 50	862 50		
Highways and Bridges		1,839 15		1,839 15	
City Hall Sinking Fund	51,158 39	51,158 39		51,158 39	
Funded Debt 1868 Sinking Fund	24,556 11	24,556 11		24,556 11	
" 1874 "	3,508 28	3,508 28		3,508 28	
Park Debt Sinking Fund	10,370 53	10,370 53			10,370 53
Jones' Falls 1900 Sinking Fund	3,508 28	3,508 28		3,508 28	
Harbor		4,000 00			4,000 00
Harbor Commission	214,536 66	218,017 05	215,212 50		2,804 55
Repairs of Wharves	2,466 59	5,000 00	5,000 00		
Wharf at foot of Hanover street	2,634 39	2,787 50	2,787 50		
" " Charles street	3,614 78	4,000 00	4,000 00		
Building New Ice Boat	20,087 90	140,000 00	140,000 00		
State Police	683,000 00	1,137,569 88	598,000 00	539,569 88	
Health Department.					
Cleaning Streets	218,945 68	189,799 83	189,799 83		
" (special.)	9,999 75	10,000 00	10,000 00		
Nuisances and Sewers	8,392 44	7,722 73	7,722 73		
Marine Hospital	21,855 27	24,064 74	16,750 00		7,314 74
Refuse		2,779 60			2,779 60
General Health	42,244 27	37,723 71	37,723 71		
Fire Department.					
Fire Board	185,455 59	166,003 76	162,800 00		3,203 76
Repairs of Engine Houses	11,761 15	14,562 45	14,562 45		
Telegraph	67,604 58	68,307 57	68,307 57		
Amounts carried forward	$2,848,488 14	$4,383,166 08	$2,614,825 55	$1,499,408 50	$268,932 03

STATEMENT D—Continued.

NAMES OF ACCOUNTS.	FACE OF LEDGER. DR.	FACE OF LEDGER. CR.	Appropriations	Cash received from Collector.	Cash received from other sources.
Amounts brought forward	$2,848,488 14	$4,383,166 08	$2,614,825 55	$1,499,408 50	$268,932 03
General Expenditures.					
Broadway Hall	167 58	265 00	150 00		115 00
City Council	54,265 38	55,105 50	55,105 50		
City Collector, salaries	47,488 80	40,000 00	40,000 00		
Commissioners for Opening Streets	309 73	300 00	300 00		
City Librarian	5,573 37	10,000 00	10,000 00		
Cross Street Hall	322 35	711 00			711 00
Hollins Street Hall		50 00			50 00
Elections	15,277 86	7,802 00	7,800 00		2 00
Supervisions of Elections	4,306 76	5,000 00	5,000 00		
General Licenses	902 81	32,751 70	1,200 00		31,551 70
Theatricals		2,947 00			2.947 00
Salaries	72,405 66	63,400 00	63,400 00		
Masonic Hall	2,590 82	3 000 00	3,000 00		
Court House	5,357 38	5,000 00	5,000 00		
Lamplighters	51,288 00	43,128 00	43,128 00		
Interest	315,069 19	383,663 90	120,000 00	257,695 03	5,968 87
" on Stock Debt	1,505,470 47	2,743,490 53	1,945,990 53		797,500 00
Gas	201,054 54	180,050 00	180,050 00		
Gasoline Lamps	20,702 44	18,400 46	18,400 46		
General Expense	3,521 13	3,500 00	3,500 00		
Public Printing	2,614 36	6,847 53	6,045 97	759 56	42 00
Tax Sales	21,247 78	20,927 16	8,000 00		12,927 16
Wharfage	7,658 98	43,135 57	8,000 00		35,135 57
Ice Boat	10,000 00	10,000 00	10,000 00		
Superintendent of City Hall	16,910 24	16,775 08	16,775 08		
Mayoralty	1,195 01	2,000 00	2,000 00		

Broadway Squares	2,366 27	2,500 00	2,500 00	
Perkins' Spring Square	3,746 39	4,299 52	4,299 52	
Eastern " "	909 78	1,500 00	1,500 00	
Jackson Square	707 68	1,000 00	1,000 00	
Mt. Vernon Squares	16,100 00	18,150 00	18,150 00	
Lafayette Square	1,863 97	2,000 00	2,000 00	
Park Place Square	998 43	1,000 00	1,000 00	
Franklin Square	771 04	2,000 00	2,000 00	
Union Square	3,162 54	3,162 54	3,162 54	
Madison Square	3,094 38	3,396 23	3,396 23	
Eutaw Squares	9,198 81	9,300 00	9,300 00	
City Property	2,418 75	3,404 75	2,000 00	1,404 75
State Tax on Permanent Water Loan	907 36	907 36	907 36	
Ringing Mechanics' Bell foot Caroline street	100 00	100 00	100 00	
" " " Federal Hill	100 00	100 00	100 00	
Belair Market	3,076 49	12,791 95	2,325 00	10,466 95
Fell's Point Market	1,065 88	6,330 41	375 00	5,955 41
Richmond "	583 59	3,768 47		3,768 47
Centre "	4,461 82	12,740 54	3,555 00	9,185 54
Lafayette "	226 80	534 00	75 00	459 00
Hollins "	2,881 95	6,396 70	2,562 50	3,834 20
Lexington "	1,372 41	13,265 55	600 00	12,665 55
Hanover "	2,532 43	7,242 02	1,753 75	5,488 27
Cross Street "	1,214 30	3,791 39	875 09	2,916 30
Inspector of Buildings	4,000 04	3,300 00	3,300 00	
Building Grammar School No. 6	28,267 66	28,339 03	28,339 03	
" " " 12	12,350 86	23,000 00	23,000 00	
" " " 16	12,219 25	12,219 25	12,219 25	
" " " 21	5,740 25	5,997 81	5,997 81	
" " " 22	9,106 94	10,153 29	10,153 29	
" Primary " 6	5,870 80	17,000 00	17,000 00	
" Colored " 7	4,762 44	20,000 00	20,000 00	
Enlarging Grammar " 10	5,900 00	6,000 00	6,000 00	
Amounts carried forward	$5,366,267 09	$8,327,107 32	$5,357,217 44	$1,757,863 09	$1,212,026 77

STATEMENT D.—Continued.

NAMES OF ACCOUNTS.	FACE OF LEDGER. DR.	FACE OF LEDGER. CR.	Appropriations	Cash received from Collector.	Cash received from other sources.
Amounts brought forward	$5,366,267 09	$8,327,107 32	$5,357,217 44	$1,757,863 09	$1,212,026 77
Enlarging Grammar School No. 15	4,960 00	5,000 00	5,000 00		
Building Police Stations	379 00	379 00	379 00		
Repairs of Public Schools	19,438 95	19,840 89	19,840 89		
" City Property	7,247 33	7,396 60	7,396 60		
Permits for Sheds, Signs, &c		3,915 81			3,915 81
Building Shed at Bowly's Wharf	300 00	300 00	300 00		
Repairs of Sheriff's Office	499 75	500 00	500 00		
Park Commission.					
Druid Hill and Patterson Parks	131,249 45	118,741 64	21,000 00		97,741 64
Riverside Park	29,549 55	23,771 00	23,771 00		
Harlem Square	5,466 99	6,432 35	6,432 35		
City Commissioner.					
Bridge over Jones' Falls at John street	6,778 00	7,200 00	7,200 00		
Culvert on Bayard street	1,700 00	1,700 00	1,700 00		
Culvert on Oliver and Burke streets	935 90	935 90	935 90		
City Commissioner, Salaries and Incidentals	11,611 20	10,100 00	10,100 00		
Broadway Sewer	36,934 00	37,000 00	37,000 00		
Pratt Street "	5,184 41	5,185 99	5,185 99		
Carey Street "	34,766 10	45,000 00	45,000 00		
Chatsworth Run Sewer	16,654 28	17,305 68	17,305 68		
Pearl Street "	17,169 64	20,000 00	20,000 00		
Pennsylvania Ave. "	9,184 76	21,000 00	21,000 00		
Harford Run "	3,924 15	25,000 00	25,000 00		
Race Street "	2,781 18	9,000 00	9,000 00		
Light Street "	96 15	20,000 00	20,000 00		
Liberty Street "	19 50				

Pillars and Lamps	3,216 25	5,000 00	5,000 00		
Argyle Avenue Bridge	19,469 34	20,000 00	20,000 00		
Calvert Street "	165 80	15,000 00	15,000 00		
Flag and Stepping Stones	24,192 40	24,168 38	24,168 38		
Cross Streets	53,767 23	53,846 99	53,846 99		
Iron Plates at Sundry Streets	11,260 20	12,000 00	12,000 00		
Inlets at Sundry Streets	2,501 25	2,000 00	2,000 00		
Calvert Street Spring		125 00	125 00		
Vaults and Areas		606 20			606 20
Changing Grade of Greenmount avenue	687 12	880 00	880 00		
Repairs of Lamps	2,477 94	3,083 43	3,000 00		83 43
" Paved Streets	40,149 84	40,200 73	40,000 00		200 73
" Unpaved Streets	1,416 04	1,500 00	1,500 00		
" Sewers	9,919 60	10,595 80	10,000 00		595 80
" Washington Monument	199 09	200 41	200 41		
" Washington avenue	124 25	200 00	200 00		
" City Bridges	6,000 90	6,352 00	6,000 00		352 00
Shelling Loney's lane	262 80	300 00	300 00		
" Canton avenue		150 00	150 00		
" East Baltimore street	174 00	267 80	267 80		
Repaving Streets	3,345 48	4,000 00	4,000 00		
Paving in front of City Property	852 34	1,000 00	1,000 00		
Miscellaneous.					
Appeal Tax Court	177 95				
Gov't Tax withheld by Balto. & Ohio R R. Co.	2,025 00	13,500 00			13,500 00
City Extension	1,200 00	1,200 00	1,200 00		
City Seal		634 25			634 25
Cash	12,176,736 81	12,181,394 97			
New Cross Street Market		2,709 80			2,709 80
" Lafayette "		2,629 34			2,629 34
" Richmond "		6,519 69			6,519 69
" Lexington "		3,123 08			3,123 08
" Belair "		192 90			192 90
Amounts carried forward	$18,073,419 01	$21,146,192 95	$5,862,103 45	$1,757,863 09	$1,344,831 44

STATEMENT D.—Continued.

NAMES OF ACCOUNTS.	FACE OF LEDGER. DR.	FACE OF LEDGER. CR.	Appropriations	Cash received from Collector.	Cash received from other sources.
Amount brought forward	$18,073,419 01	$21,146,192 95	$5,862,103 45	$1,757,863 09	$1,344,831 44
Picture of New City Hall	226 50	750 00	750 00		
Baker Circle	100 00	200 00	200 00		
Direct Tax		1,872,486 88		1,872,486 88	
Defining Port Warden's Line	1,000 00	1,000 00	1,000 00		
Auction Duties		15,311 02			15,311 02
United States Supreme Court Reports	470 00	500 00	500 00		
Internal Improvements		175,470 16		175,470 16	
Miscellaneous Stock		716,497 38		716,497 38	
Taxes Refunded	7,750 17				
Special Appropriations	6,689 37	6,904 92	6,904 92		
Sale of City Property	1,481 87	13,604 82			13,604 82
Lot corner Eager and Cathedral streets	360 00	360 00	360 00		
Western Maryland Railroad Company	142,365 00				
History of City Hall	1,893 00	3,230 00	3,230 00		
Purchase of bed of Diamond alley	500 00	500 00	500 00		
Loans	3,484,659 00	4,259,159 00			4,259,159 00
Improvement of Jones' Falls	278,588 18	328 19			328 19
Jones' Falls 1900 Loan		152,017 75			152,017 75
Water Board	671,961 10	562,896 00	700 00		562,196 00
Permanent Water Supply	1,094,932 67	886,600 00			886,600 00
Plugs and Pumps	1,000 00	1,000 00	1,000 00		
Drinking Fountains at sundry streets	875 00	875 00	875 00		
Closing Liberty road	157 50				
" Kirby's lane	3,231 54	2,652 87		2,652 87	
" Humes street	157 28				
Widening Gay street	60 00				
" Franklin street		310 00			310 00
" Orleans street	15 30	12,600 44		12,600 44	

Widening Fayette street		56,859 78	49,076 86	7,782 92	
Opening streets, lanes and alleys		127,635 17		127,635 17	
" Boundary (or North) avenue	21,519 49	11,338 92	6,638 92		4,700 00
" Lexington street	390 85				
" Chew street	283 50	321 59	20 80	300 79	
" Forrest street	563 96				
" Oliver street	42,412 88	31,631 43	3,026 19	26,960 24	1,645 00
" Biddle street	9 50				
" Bloom street	64,283 25	62,461 51	39,972 02	22,289 48	200 00
" Sharp street	365 65				
" Townsend street	2 00				
" Gist street	424 14				
" Grove alley	62 20	100 00			100 00
" Wilkens avenue	45,080 12	44,692 37	29,886 07	14,806 30	
" Marshall street No. 1	8,824 94	8,800 66	2,151 01	6,434 65	215 00
" " " 2	56,001 27	58,904 42	28,862 53	21,091 89	8,950 00
" " " 3	66 13				
" Federal Hill Park	305 32				
" Ostend street		13 50		13 50	
" Tunnel alley	48 05				
" Broadway	1,366 55	35 06		35 06	
" Hanover street	10 90				
" Fulton street	26 70				
" Calhoun street	60 95				
" Eager street	21,985 53	22,038 84	15,125 74	6,838 10	75 00
" Franklin street	1,263 17				
" Lanvale street No. 3	5,225 00	1,318 29		1,318 29	
" Eutaw Place	716 44				
" Beason street	158 24	11 12		11 12	
" fifteen foot alley, Wilson to Presstman streets	247 62	139 32		139 32	
" Valley street	416 44	668 08		668 08	
" Hull street	306 57	154 24		154 24	
" North street		286 49		286 49	
Amounts carried forward	$24,044,319 85	$30,258,858 17	$6,052,883 52	$4,774,336 46	$7,250,243 22

STATEMENT D.—Continued.

NAMES OF ACCOUNTS.	FACE OF LEDGER. DR.	FACE OF LEDGER. CR.	Appropriations	Cash received from Collector.	Cash received from other sources.
Amount brought forward	$24,044,319 85	$30,258,858 17	$6,052,883 52	$4,774,336 46	$7,250,243 22
Opening Calvert street	333 33	1,555 75	96 58	1,459 17	
" McKim street	538 87	430 00		430 00	
" Decatur street	344 85	893 50		893 50	
" Porter street	345 82				
" Lot, McMechin, Oliver and North ave.	3,102 78	3,140 78	3,140 78		
" Pitcher street	25,612 46	7,988 32		7,988 32	
" McHenry street	492 21	12 45		12 45	
" Luzerne street	879 35				
" Leloup street		49 36		49 36	
" Ensor street	264 83	72 50		72 50	
" Washington street No. 2	19,423 66	10,630 98		10,585 98	45 00
" " No. 3	231 72				
" Jones' street	274 08				
" Elm street	233 90				
" St. Paul street	509 53				
" Triangle, Barre and Sterrett streets		163 24	163 24		
" Eden street	1,083 25	13 60		13 60	
" Wilcox street	143 30				
Paving Interest		3,002 58		3,002 58	
" Haubert street		1,217 58		1,217 58	
" Bayard street		3,364 27		3,364 27	
" Wilkens' avenue		27 50		27 50	
" Hoffman street No. 3		162 34		162 34	
" Baker street No. 2		853 58		853 58	
" Hampstead street		784 81		784 81	
" Sterrett street	764 37	198 73		198 73	
" Mount street	847 47	383 86		383 86	
" Dock street	15 05	616 14		616 14	

Paving Federal street	14 45	1,526 45		1,526 45	
" Broadway	14 40				
" Presstman street No. 1	5,869 08				
" " " 2		2,269 54		2,269 54	
" Leloup street	1,385 65	274 63		274 63	
" Randall street	10,407 20	1,504 03		1,504 03	
" Raborg street	1,241 74	455 85		455 85	
" Sarah Ann street	700 21	384 62		384 62	
" Chester street	4,840 88	6,351 04		6,351 04	
" Johnson street	1,477 33	1,538 02		1,538 02	
" Mangold street		162 43		162 43	
" Lanvale street	9,007 19	887 69		887 69	
" Fulton street	3,052 66	2,738 19		2,738 19	
" Washington avenue	8,269 77	604 95		604 95	
" Frederick avenue	10,478 89	4,098 10		4,098 10	
" Hall alley	923 93	165 73		165 73	
" Durst alley	872 72	296 89		296 89	
" Division street		3,789 12		3,789 12	
" Paca street	2,112 45	2,300 00	2,300 00		
" Hanover street	33,983 04	685 97		685 97	
" Washington street	6,290 84	1,609 95		1,609 95	
" Ann street		12 07		12 07	
" Warner street		1,273 22		1,273 22	
" Second street	4,809 55	1,098 96		1,098 96	
" John street		732 98		732 98	
" Hoffman street	11,717 93	8,268 34		8,268 34	
" Preston street		6,688 05		6,688 05	
" Winchester street	7,534 09	7,269 49		7,269 49	
" Alice Anne street	3,420 16	605 24		605 24	
" West street	1,465 46	671 26		671 26	
" Druid Hill avenue	27,358 46	3,007 87		3,007 87	
" Calverton road		86 55		86 55	
" Liberty street	22,418 84				
" Park street	730 83				
Amount carried forward	$24,280,159 43	$30,355,777 27	$6,058,584 12	$4,864,509 96	$7,250,288 22

STATEMENT D—Concluded.

NAMES OF ACCOUNTS.	FACE OF LEDGER. DR.	FACE OF LEDGER. CR.	Appropriations	Cash received from Collector.	Cash received from other sources.
Amounts brought forward	$24,280,159 43	$30,355,777 27	$6,058,584 12	$4,864,509 96	$7,250,288 22
Paving Eutaw Squares	12,283 48	2,670 71		2,670 71	
" South street	7,843 32	326 52		326 52	
" Albemarle street	272 62	142 22		142 22	
" Biddle street	8,230 27	3,014 12		3,014 12	
" Gist street	9,765 47	7,534 06		7,534 06	
" Laurens street	2,978 30	2,295 07		2,295 07	
" Baker street	5,437 03	2,188 10		2,188 10	
" Foster alley	487 01	2,060 69		2,060 69	
" Vincent alley	806 36	3 72		3 72	
" Edmondson avenue		637 16		637 16	
" Post office avenue	1,944 97	235 47		235 47	
" Harlem avenue	3,068 61	672 79		672 79	
" Lemmon alley	756 98	386 86		386 86	
" Eden street	4,413 32	920 28		920 28	
" Lancaster street	2,382 00	788 80		788 80	
" Calhoun street	1,925 96	769 54		769 54	
" Wilson street		1,910 48		1,910 48	
" Chester street No. 2		2,851 67		2,851 67	
" Truxton		230 79		230 79	
" Washington avenue No. 2		1,031 17		1,031 17	
" Fourth street		1,025 91		1,025 91	
" Chestnut alley		21 81		21 81	
" Fayette street		425 59		425 59	
" Aisquith street		927 86		927 86	
" Read street		1,263 52		1,263 52	
" Spring street		430 05		430 05	
" Dallas street		67 39		67 39	
" Franklin street	75 20	57 57		57 57	

Paving Ostend street		172 36		172 36	
" Twenty foot alley, from Lanvale street to Harlem avenue	806 44	135 37		135 37	
" McElderry street		752 17		752 17	
" Oliver street		3,680 06		3,680 06	
" Clement street		5,679 87		5,679 87	
" Charles street		8,692 53		8,692 53	
" Chew street		1,447 83		1,447 83	
" Stricker street		458 02		458 02	
" McHenry street		87		87	
" Orleans street		3,163 16		3,163 16	
" Castle alley		859 18		859 18	
" North street	2,009 53				
" Boundary avenue	5,031 40				
" Hammond alley		372 83		372 83	
" Calvert street	7,454 08				
" Cross street		489 96		489 96	
" Baltimore street		77 87		77 87	
" Boston street		66 63		66 63	
Mayor and City Council	6,058,584 12				
Totals	$30,416,715 90	$30,416,715 90	$6,058,584 12	$4,926,448 59	$7,250,288 22

STATEMENT E.

Aggregate receipts and disbursements from October 31, 1876, to December 31, 1877.

1876.	Receipts.	Disbursements.
November	$360,640 01	$844,460 45
December	696,522 09	875,957 13
1877.		
January	568,633 37	417,599 81
February	943,553 16	447,643 68
March	505,786 05	901,622 55
April	895,710 09	508,427 41
May	837,859 23	841,765 48
June	778,938 31	935,761 17
July	441,401 05	470,663 53
August	240,041 30	1,696,318 62
September	3,032,944 75	1,755,319 88
October	1,142,944 75	1,097,674 14
November	613,081 83	764,261 01
December	1,118,680 82	623,920 11
	$12,176,736 81	$12,181,394 97
Balance October 31, 1876	308,334 70	
" December 31, 1877		303,676 54
	$12,485,071 51	$12,485,071 51

STATEMENT F.

FIVE MILLION LOAN SINKING FUND.

The condition of the Sinking Fund, for the redemption of the Five million Loan to the Baltimore and Ohio Railroad Company, the 31st day of December, 1877, is as follows:

Consolidated Loan, 1890, 6 per cent. stock	$74,000 00
Five Million Loan, 1890, 6 per cent. stock	805,200 00
One Million Loan, 1886, 6 per cent. stock	143,000 00
City Hall Loan, 1884, 6 per cent. stock	48,800 00
City Hall Loan, 1900, 6 per cent. stock	12,000 00
City Hall Loan, 1902, 6 per cent. stock	600 00
Funding Loan, 1900, 6 per cent. stock	41,400 00
Consolidated Loan, 1893, 6 per cent. stock	314,700 00
Park Improvement Loan, 1895, 6 per cent. stock	6,100 00
Exempt Loan, 1893, 6 per cent. stock	11,000 00
Public Park Loan, 1890, 6 per cent. stock	35,700 00
West. Md. R. R. Loan, 1902, 6 per cent. stock	37,500 00
Amount carried forward	$1,530,000 00

STATEMENT F.—Concluded.

Amount brought forward.....	$1,530,000 00	
Valley R. R. Loan, 1886, 6 per cent. stock.....	35,500 00	
Jones' Falls Loan, 1900, 6 per cent. stock.....	9,300 00	
		1,574,800 00
Water Loan, 1916, 5 per cent. stock.....	282,600 00	
Consolidated Loan, 1885, 5 per cent. stock.....	9,700 00	
		292,300 00
West. Maryland Railroad Guaranteed Bonds, (registered,).....	22,000 00	
West. Maryland Railroad Guaranteed Bonds, (coupon,).....	43,500 00	
		65,500 00
Bills Receivable, paving notes of Mayor and City Council.....		25,989 80
Cash.....		33 77
		$1,958,623 57

STATEMENT G.

WESTERN MARYLAND RAILROAD SINKING FUND.

The condition of the Sinking Fund for the redemption of the bonds of the Western Maryland Railroad Company, guaranteed by the City of Baltimore, December 31, 1877, is as follows :

Consolidated Loan, 1890, 6 per cent. stock	$2,800 00	
Consolidated Loan, 1893, 6 per cent. stock	3,600 00	
One Million Loan, 1886, 6 per cent. stock	800 00	
West. Md. R. R. Loan, 1902, 6 per cent. stock	500 00	
		7,700 00
Water Loan, 1916, 5 per cent. stock	12,800 00	
Consolidated Loan, 1885, 5 per cent. stock	500 00	
		13,300 00
West. Maryland Railroad Guaranteed Bonds, (registered,)	9,000 00	
West. Maryland Railroad Guaranteed Bonds, (coupon,)	135,500 00	
		144,500 00
Cash		680 59
		$166,180 59

COMMUNICATIONS.

OFFICE OF INSPECTOR OF BUILDINGS,

Baltimore, January 2, 1878.

JOHN A. ROBB, Esq., *City Register.*

Sir:—The following are the amounts required for this Department for the fiscal year ending December 31, 1878:

Repairs of Public Schools, balance	$ 505 95
" " amount required for 1878	20,000 00
Repairs of Engine Houses, balance	2,808 69
" " amount required for 1878	3,500 00
Repairs of City Property, balance	301 91
" " amount required for 1878	4,000 00
Building Grammar School House No. 22, balance	1,046 35
Building Grammar School House No. 12, balance	10,649 14
Building Primary School House No. 6, balance	11,129 20
Building Colored School House No. 7, balance	15,237 56
Salaries	3,000 00
Keeping horse at livery	300 00
Amount carried forward	$72,478 80

Amount brought forward	$72,478 80
Sundry unpaid bills for repairs of Public School Houses	1,887 04
Sundry unpaid bills for repairs of Engine Houses,	570 96
Sundry unpaid bills for repairs of City Property,	6 00
	$74,942 80

Yours respectfully,

ICHABOD JEAN,

Inspector of Buildings.

HEALTH DEPARTMENT—CITY HALL.

Baltimore, January 3d, 1878.

JOHN A. ROBB, Esq., *City Register.*

Sir:—The requirements of this department for the year 1878 will be—say for

Streets and garbage	$169,000 00
Contract for removal of garbage	13,500 00
General health	12,000 00
Nuisance and sewers	6,500 00
Salary account	17,700 00
Cleaning cess-pools Public Schools	2,500 00
Marine Hospital	15,000 00
	$236,200 00

Respectfully submitted,

JAMES A. STEWART,

Commissioner of Health.

BALTIMORE, January 7th 1878.

JOHN A. ROBB, Esq., *City Register.*

Dear Sir:—In reply to an enquiry made verbally, as to the sum that will probably be needed by the Park Commission in addition to their income from the City Passenger Railways to maintain Druid Hill and Patterson Parks during the current year, it may be said that the railway income and receipts from sales, &c., at both Parks from present appearances will fall short of the requirements at the two Parks in the neighborhood of $38,500.

The income from the Railways in 1877, was insufficient even when supplemented by the special appropriations of $21,000, and what remained of the savings of past years before the railway tax was reduced, and which now has been used up.

The railway income was less in 1877 than it was in 1876 by $7,536.70, nor is there a reasonable hope that it will be much better in 1878 than it was in 1877.

The balance on hand from past accumulations on the 31st of October, 1876, was $16,690.54. The railway income to the 31st of October, 1877, with sales, &c. from the two Parks, was $41,183.10, and the City appropriated $20,000, in 1877, besides $1,000 to the Fish Commission which was expended at Druid Hill, in all the sum of $78,873.64, was in the hands of the Commission and was not more than sufficient to maintain the Parks in reasonably fair condition, without undertaking any permanent improvements of consequence; adding to the railway income, receipts from sales, &c. of both Parks, the total income from the railways and the Parks for 1877 was $41,183.10, which, deducted from the amount expended in 1877 of $79,679.55, leaves a deficiency of $37,190.54. In suggesting an appropriation therefore of $40,000, the Commission do not think they exceed what may fairly be regarded as necessary to

enable them to do their duty to the public in this connection. The report just made to the Mayor and City Councils enters more full into this subject.

When the railway tax was reduced from 20 to 12 per cent. of the gross receipts of the railway companies, the intire interest on the Park Stock continued to be charged on the lessened revenue, and the effect was to reduce the revenue for the two Parks from $143,730.69 in 1874 to $38,300 in 1875. The Commission reduced their expenses accordingly; and now carry on the Parks as economically as possible looking to their proper maintenance. If, instead of making it necessary to ask for special appropriations, the Councils were to credit the Parks with the gross income from the railways, less the sinking fund at the average of the last three years, the three Parks, Druid Hill, Patterson and Riverside, could be maintained and improved without calling upon the City for assistance from time to time.

It can make no difference to the City whether it makes an appropriation for interest on the Park stock, or whether it appropriates the same amount for Park purposes.

By order, D. Rayhice, *Secretary.*

Office of Bay View Asylum—City Hall.

Baltimore, January 7, 1878.

John A. Robb, Esq., *City Register.*

Dear Sir:—In making up your estimate for the expenses for the various departments of the City Government for the current fiscal year, you will please ask for an appropriation of seventy thousand dollars for Baltimore City Almshouse.

Very respectfully,

Jos. Clarkson,

President of the Board of Trustees.

TABLE B.

Showing the amounts required for the City Commissioner's office, from 1st November, 1877, to 31st December, 1878.

ACCOUNTS.	Amounts.
Repairs of paved streets	$50,000 00
" bridges	6,000 00
" sewers and inlets	10,000 00
" lamps	2,600 00
" unpaved streets	2,000 00
Lamp pillars and lamps	4,000 00
Flag and stepping-stones	20,000 00
Paving in front of City Property	2,000 00
Repairing streets	3,000 00
Paving and repairing cross streets	30,000 00
Incidentals	250 00
Salaries	10,500 00
Carey street sewer	10,238 90
Light street sewer	19,925 00
Pennsylvania avenue sewer	11,815 24
Race street sewer	12,250 00
Calvert street bridge, (balance of appropriation,)	139,834 20
Harford run sewer	21,075 85
	$355,489 19

FIRE DEPARTMENT, CITY HALL—OFFICE BOARD OF FIRE COMMISSIONERS,

Baltimore, January 1st, 1878.

JOHN A. ROBB, Esq., *City Register.*

Sir:—Please find herewith a copy of the estimates required for the Fire Department for the fiscal year of 1878.

Very respectfully,

JNO. T. MORRIS, *President,*
THOS. W. CAMPBELL,
JAMES A. BRUCE,
HUGH GIFFORD,
SAM'L W. REGESTER,
Board of Fire Commissioners.

Test:

GEO. A. CAMPBELL, *Sec'y.*

Fire Department—Estimates for fiscal year 1878.

Salaries	$110,850 00
Apparatus	5,500 00
Apparatus repairs	10,000 00
Accident	1,800 00
Feed	8,000 00
Furniture	1,000 00
Harness and repairs	1,200 00
Horse shoeing	1,500 00
Hose	5,000 00
Horses	3,500 00
Gas light	1,000 00
Medicine	100 00
Amount carried forward	$149,450 00

Amount brought forward.....		$149,450 00
Office expenses, including pay of messengers.....	600 00	
Water rent.....	388 00	
Washing.....	1,350 00	
Fuel.....	2,500 00	
Beds.....	500 00	
Oils, grease, paints, &c.....	1,250 00	
Miscellaneous.....	850 00	
Insurance premium.....	2,250 00	
Ground rents.....	1,200 00	
		$160,338 00
Fire Alarm Telegraph.		
Salaries.....	8,400 00	
Repairs.....	500 00	
Battery.....	3,820 00	
		$12,720 00
Amount to equip new Truck Company.....		2,800 00
Total.....		$175,858 00

JOHN A. ROBB, Esq., *City Register.*

Dear Sir:—The following is an estimate of the amount required for the New City Hall for the fiscal year ending December 31st, 1878:

Brooms, brushes, buckets, feather dusters, &c.....	$400 00
Five hundred tons coal @ $5.40 per ton.....	2,700 00
Covering chandeliers, mirrors, &c.....	200 00
Incidental expenses.....	500 00
Ice.....	333 00
Winding up the Town Clock, Police and Fire Alarm, &c.....	500 00
Removing and hauling ashes, dirt, &c.....	250 00
Repairs to furniture, gas and water fixtures, &c.....	750 00
Gas.....	5,411 50
Gas bill outstanding.....	985 50
Repairs to Police and Fire Alarm Striker.....	45 00
New furniture, carpets, oil cloth, &c.....	1,000 00
Laborer.....	600 00
Cleaning rooms, corridors, &c.....	4,800 00
	$18,475 00

Respectfully,

JAMES DONNELLY,

Sup't City Hall.

OFFICE OF THE COMMISSIONERS OF PUBLIC SCHOOL,

BALTIMORE, January 8, 1878.

JOHN A. ROBB, Esq., *City Register.*

Dear Sir:—I respectfully submit the accompanying estimate of expenses of this Department for the year 1878, which has been made after a careful examination of its wants, and hope that there will be no reduction.

Estimated amounts required by the Board of Commissioners of Public Schools for the current expenses of said Schools for the year 1878:

For Salaries.....	...White Schools.....	$450,000	00
" Rents and ground rents.....	"	30,000	00
" Books and stationery.....	"	40,000	00
" Furniture.....	"	12,000	00
" Fuel.....	"	18,000	00
" Repairs and cleaning.....	"	8,000	00
" Heating, apparatus and its repairs	"	10,000	00
" Printing, incidentals, supplies	"	10,000	00
" Evening schools.....	"	6,000	00
" Colored schools.....	"	60,000	00
		$644,000	00

Yours respectfully,

JNO. T. MORRIS,

President.

BALTIMORE, January 8th, 1878.

Estimate of Old Masonic Hall (City and Circuit Courts) for the year 1878:

Salaries of Janitor and Watchman	$1,900 00
Fifty tons of coal	300 00
Stowing away	20 00
Three cords of kindling wood	20 00
Gas Company	100 00
Cleaning Courts, offices, &c	500 00
Glazing	20 00
Repairing stoves	70 00
Cleaning carpets	60 00
Brooms, buckets, &c	25 00
Water rent	20 00
Hauling coal and ashes	25 00
Lime and whitewashing	20 00
Incidentals	100 00
Ice for Courts and offices	100 00
Awnings for Circuit Court room	30 00
	$3,310 00

Respectfully submitted,

JOHN NORMAN,

Superintendent.

JOHN A. ROBB, *City Register.*

BALTIMORE, January 10th, 1878.

The estimated expenses for the year 1878 of the Court House, Record Office and grounds:

Superintendent	$1,200 00
Watchman	1,000 00
Servants' hire for cleaning court rooms	864 00
Ice for Court rooms and Jury rooms	160 00
Repairs of furniture	40 00
Buckets, brooms, brushes, &c	25 00
Repairing stoves, coal hods, &c	75 00
Gas bills and repairs of fixtures	175 00
Water rent	24 00
Hauling ashes from Court house	40 00
80 tons of coal and 7½ cords of wood and stowing the same away	425 00
Incidental expenses	25 00
Whitewashing halls and Court houses	25 00
Carpets, oil cloths, matting, &c., and for laying the same in Court rooms	50 00
	$4,128 00

WM. H. CLIFFORD,

Superintendent of Court House,

OFFICE OF THE HARBOR BOARD OF BALTIMORE—CITY HALL.

Baltimore, January 10th, 1878.

MR. JOHN A. ROBB, *City Register.*

Dear Sir:—The Board authorize me to say that their estimates for year ending December 31st, 1878, are as below.

Harbor improvement and general expenses	$105,000 00
Repair of wharves	5,000 00
Total (new)	$110,000 00

Also the following balances of appropriations unexpended December 31st, 1877:

Ice Boat	$119,912 10
Repair of wharves	2,533 41
Harbor accounts	685 84
Re-appropriations	$123,131 35

Respectfully, &c.,

N. H. HUTTON, *Secretary.*

OFFICE OF BOARD OF SUPERVISORS OF ELECTION,
In the City of Baltimore.

Baltimore, December 31, 1877.

JOHN A. ROBB, Esq., *City Register.*

Dear Sir:—The requirements for this department for the present fiscal year are as follows:

Advertising judges and voting places	$1,500 00
Stationery, &c..	500 00
Salaries	1,000 00
Miscellaneous	500 00
	$3,500 00

Very respectfully,

GEO. R. THOMAS, *Sec'y.*

CITY LIBRARY—CITY HALL.

Baltimore, January 5, 1878.

JOHN A. ROBB, Esq., *City Register.*

Dear Sir:—The expenditures for stationery and printed matter for the various Departments of the City Government for the last year, as provided for under the direction of this department, warrant me in saying that it will require to meet the expense for the current year ten thousand dollars ($10,000).

Very respectfully,

JOHN S. BROWN,
City Librarian.

ANNUAL REPORT

OF THE

CITY COMPTROLLER,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

REPORT.

City Comptroller's Office,

Baltimore, January 1st, 1878.

To the Honorable the Mayor and the Members of the First and Second Branches of the City Council.

Gentlemen :

In conformity to Ordinance No. 57, entitled an "Ordinance to determine the beginning of the Fiscal Year," Approved June 29th, 1877, I have the honor of reporting the financial operations of this department, commencing with the 1st day of November, 1876, (said date being the beginning of the fiscal year as fixed by the Ordinance of 1871, No. 56, and repealed by that of 1877,) and ending with the 31st day of December, 1877, embracing a period of fourteen months.

The following table exhibits the aggregate receipts and disbursements from the 1st of November, 1876, to the 31st December, 1877, both dates inclusive.

STATEMENT OF RECEIPTS.

From City Collector for taxes in the aggregate.....	$4,649,952 68		
" City Collector for opening, widening and closing sundry Sts ..	145,888 66		
" City Collector for paving streets and alleys	130,607 25		
		$4,926,448	59
" market rents and licenses.....		54,739	69
" sale of stalls in new markets.....		15,174	81
" licenses for wagons, carts, billiards, &c.....		31,551	70
" theatrical licenses		2,947	00
" sale of certificates of health and sealing papers.....		634	25
" rent of public halls.		876	00
" wharfage by Harbor Masters		35,135	57
" Magistrates, for fines for violation of City Ordinances.....		1,015	25
" B. & O. R. R. Co., int. on $5,000,000 loan.....		375,000	00
" Commissioners of Finance, dividend on B. & O. R. R. Co's stock.....		422,500	00
" sale of Water Loan of 1894		886,600	00
" temporary loans.....		4,259,159	00
" Passenger Railway Companies for Park Sinking Fund.....		10,370	53
Amount carried forward.....		$11,022,152	39

	Amount brought forward		$11,022,152 39
From	Passenger Railway Companies and Park Board, for Druid Hill and Patterson Parks.....		97,741 64
"	Marine Hospital fees.....		7,314 74
"	Commissioner of Health, sale of refuse,		2,779 60
"	private dredging, amount due the late Port Warden's Department.		4,000 00
"	Auctioneers for State duties.		15,311 02
"	Water Board for rents.....		562,196 00
"	tax sales, received for redemption of property previously sold.....		12,927 16
"	State Comptroller and from tuition fees, &c., for Public Schools		214,134 09
"	ground rents due by sundry parties....		1,404 75
"	permits for erecting sheds, signs, &c.,		3,915 81
"	City Commissioner:		
	For permits for Vaults and Areas	$606 20	
	" permits for sundry opening sewers.....	595 80	
	" amount from sundry parties for injury to lamps...	83 43	
	" work done for the N. C. R. W. Co.....	200 73	
	" sale of old Bridges....	352 00	
	" sale of refuse material improvement Jones' Falls	22 19	
	Amounts carried forward...	$1,860 35	$11,943,877 20

Amounts brought forward.....	$1,860 35	$11,943,877 20
For advertising establishment of grades..	42 00	
		1,902 35
From sale of old material received in condemnation of the Jones' Falls Improvement.....		306 00
" sale of old material in the matter of opening streets		16,240 00
" amount overpaid to a judge of election		2 00
" amount overpaid one of the late assessors.....		1 00
" Jacob Bower, on account of transportation to Philadelphia.....		1 50
" the Sheriff of Baltimore City, fines for distribution to the dispensaries		5,419 10
" Harbor Board, for towing, &c.....		2,804 55
" Jail Board, for board of U. S. prisoners and sale of refuse.		1,997 05
" Trustees of Bayview Asylum for board of inmates, and resident students, sale of refuse, &c		2,030 21
" Fire Commissioners, for sale of equipments and refuse		3,203 76
" the city's proportion of fines collected by the Sheriff		3,757 25
" the City Solicitor, on account of a claim against Jno. Lee Chapman.....		1,000 00
Amount carried forward.....		$11,982,544 97

Amount brought forward	$11,982,544 97
From the U. S. government, for tax erroneously paid on dividend of the B. & O. R. R. Co's stock	13,500 00
" sale of property owned by the City	13,604 82
" sale of Jones' Falls Improvement Stock of 1900	152,017 75
" sundry parties for interest due	5,968 87
" sundry parties on account of removed cases	9,100 40
Balance in hands of the City Register, November 1st, 1876	308,334 70
	$12,485,071 51

DISBURSEMENTS.

For cleaning and repairs of markets	$17,415 67
" expenses of Broadway and Cross street Halls	489 93
" general licenses for painting, advertising, &c	902 81
" commissions and incidental expenses of Harbor Masters	7,658 98
" expenses of Courts, Registration, Removed Cases, Magistrates, &c.	263,772 87
" interest on the stock debt	1,505,470 47
" permanent water supply	1,094,932 67
" improvement of Jones' Falls	278,588 18
" temporary loans	3,484,659 00
Amount carried forward	$6,653,890 58

Amount brought forward	$6,653,890 58
For sinking funds to Commissioners of Finance	93,101 59
" Druid Hill and Patterson Parks	131,249 45
" Riverside Park	29,549 55
" for account of public squares, springs, &c	48,486 28
" amount expended by the Health Department	301,437 51
" City Council, salaries of members, officers and incidental expenses	53,840 38
" General Expense accounts	3,521 13
" Fire Department	185,455 59
" Police and Fire Alarm Telegraph	67,604 58
" expenses of Elections	15,277 86
" " Supervisors of Elections	4,306 76
" salaries of City Officers, &c	72,405 66
" City Poor	113,403 17
" expenses of Court House	5,357 38
" " Masonic Hall	2,590 82
" salaries of Lamplighters	51,288 00
" Gas and Gasoline Lamps	221,756 98
" Public Printing	2,614 36
" Ground rents due by the City	2,418 75
" State Police	683,000 00
" Taxes refunded	7,750 17
" Public Schools	711,957 52
" Tax Sales paid for purchase of property to secure taxes	21,247 78
Amount carried forward	$9.483,511 75

Amount brought forward	$9,483,511	75
For Commissioners for Opening Streets, incidental expenses	309	73
" City Collector and Appeal Tax Court	47,666	75
" City Commissioner's Department	328,062	55
" Inspector of Buildings Department	132,205	26
" Expenditures by the Harbor Board	243,640	32
" City Librarian's Department	5,573	37
" Special Appropriations	6,689	37
" Expenses of Jail Board	58,700	53
" interest on Western Maryland Railroad Company's Bonds	142,365	00
" History of the City Hall	1,893	00
" Ice Boat	10,000	00
" House of Refuge	20,000	00
" House of Reformation and Instruction for Colored Children	20,000	00
" St. Mary's Industrial School	16,277	45
" Dispensaries	5,400	00
" Commission to define the Port Warden's line	1,000	00
" new assessment of property	53,273	46
" extension of the City	1,200	00
" picture of the new City Hall	651	50
" Amount paid for collecting tax on dividend of the B. & O. R. R. Co's stock, from the U. S. Government,	2,025	00
" expenses of the sale of City Property	1,481	87
" amount refunded on account of assessment for Liberty street sewer	19	50
Amount carried forward	$10,581,946	41

Amount brought forward.....	$10,581,946 41
For State tax on Permanent Water Loan....	907 36
" Plugs and Pumps.....	1,000 00
" Drinking Fountains.....	875 00
" purchase of the bed of Diamond alley,	500 00
" " U. S. Supreme Court reports.....	470 00
" ringing Mechanics' Bells.....	200 00
" expenses of the Superintendent of the City Hall.....	16,910 24
" incidental expenses by the Mayor.....	1,195 01
" warrants of the Water Board.....	671,961 10
" interest on debts due, and discount on taxes.....	315,069 19
" repairs of Sheriff's office.....	499 75
" damages for opening streets.....	329,862 92
" paving streets.....	259,997 99
Balance in hands of the City Register, December 31st, 1877.....	303,676 54
	$12,485,071 51

It will be perceived from the foregoing statement, that the aggregate receipts were $12,485,071.51, and the disbursements, deducting from the latter the cash balance in the hands of the City Register, $12,176,736.81. Making a proper allowance for the two months those accounts were run in excess of preceding years, the aggregate sums on the debit and the credit accounts appear considerably greater in proportion than heretofore. This apparent increase in the totals does not, however, demonstrate the true increase in either the revenue or the expenses proper of the City

Government. The tables are an abstract of all the money operations of the City. In many of the items, the City is in substance or reality a mere receiver and disburser. For example, the City is charged with the receipt of $375,000, interest received from the Baltimore & Ohio Rail Road Company, on account of the $5,000,000 loan to said Company and credited with interest which it paid on the stock issued on account of said loan. It is charged with the dividend of $422,500 received from the same Company on account of the City ownership of $3,250,000 of the stock of said Company, and on the other side of the sheet it credits itself with the interest on the stock issue of the City sold to enable it to pay its subscription to said stock. There are other items of a similar character. The Comptroller can the better illustrate his theory by referring to the item of "temporary loans," that being the second largest item in the receiving account, and the largest one in the disbursing account. The gross amount borrowed at short dates from time to time, and rendered necessary on account of the New Assessment, appears to have been $4,259,159. Now if this money had not been returned in whole, or in part, the entire sum or the part thereof paid, would, as the case might be, be a debt or expense proper. But the other side of the statement account shows disbursements in payment of said loan amounting to $3,484,659. It also exhibits the payment of $1,094,932.67 on account of the permanent or Gunpowder Water Supply, and $278,588.18 for the Jones' Falls Improvement. Now those two payments were made out of the proceeds of authorized issues and sales of City stock. The interest on these was the only expense to the City in the year 1877, and that interest is included in the disbursement item of "Interest on the stock debt."

There are several other items in the disbursement side of the financial statement that are similar to the foregoing in their character. They may be stated as follows:

Loan Account	$3,484,659 00
Permanent Water Supply	1,094,932 67
Improvement of Jones' Falls	278,588 18
Interest on account of $5,000,000 Loan to B. & O. Railroad Co	300,000 00
Interest on $3,250,000 of stock of B. & O. R. R. Co.	195,000 00
Water Board receipts (included in gross disbursements on that account)	562,196 00
Passenger Railway receipts disbursed to Park Commissioners and for the payment of interest on Park Loan, &c.	110,249 45
Receipts from State of Maryland on account of State School tax (the gross expenses of Public Schools being charged in the disbursement account)	155,402 51
Discount or deduction for prompt payment of taxes	195,422 15
Making	$6,376,449 96

Deduct the above amount from the aggregate disbursements of $12,176,736.81, and it will show the expenses proper of the City for fourteen months to have been $5,800,286.85.

FINANCIAL CONDITION OF THE CITY

December 31st, 1877.

Claims against the City according to the Accounts of this office, viz:

Due on account of Temporary Loans	$1,549,500 00
Balance due Water Board	305,099 31
Balance due Park Commission	4,182 73
Balance due Jones' Falls Improvement	29,809 77
Total	$1,888,591 81

Available Assets in bar, viz:

Cash Balance on Deposit	$303,676 54	
Amount overpaid on Gunpowder Water Supply account	105,818 44	
Due by Property holders for Grading and Paving Streets	126,375 64	
Sundries, bills receivable	10,000 00	
		$545,870 62
Deficiency		$1,342,721 19

The condition of the finances has not certainly improved since the close of the fiscal year ending 31st October, 1876. On the contrary, the deficiency which was then, according to the report of the City Register, but $1,103,716.49, is now $1,342,721.19. Showing an increase over the former year of $239,004.70. There have been causes which contributed to augment this deficiency to some extent which could not be averted, but they were not of themselves suffi-

cient to account for the difference referred to. The fact of the account of receipts and disbursements having been made up for fourteen months, while it increases the aggregate on both sides of the account, has not contributed to increase the deficiency; on the contrary, the receipts of revenue proper for the two months of November and December were in excess of the expenses, and therefore if the accounts had been made up to the 1st November, 1877, they would have exhibited a greater deficiency than now appears. There can be but one rational conclusion as to the cause of the increased deficiency, and that is, that the provisions made for paying the Appropriations were not equal to the sum appropriated. If, in the abstract, the tax levy was as great as considerations of the condition of tax-payers suggested, the Appropriations should have been adjusted to the revenue of the City.

The trite maxim of "pay as you go" is sound in morals, and wise in its application to governments.

It is gratifying to be able to state that Resolution No. 32, Approved February 14th, 1877, which authorized the Mayor, Comptroller and Register to adopt such a system of keeping the accounts in the different departments of the City Government, as would effectually protect all the interests of the City, by a system of checks, by which each department could be held to a responsibility in the matter of its receipts and expenditures, fully answers all the good purposes designed in its adoption.

The system was inaugurated on the 1st March, 1877, and a circular of instructions in that connection was issued to the several departments and commissions by the Officers above referred to. The bills of all the departments, from the greatest to the smallest amount, are audited, adjusted,

and filed in the Comptroller's department, and upon the Comptroller's order, are paid by the City Register. The money received by each department is not, as it was in advance of the adoption of the resolution aforesaid, retained and disbursed in the payment of bills incurred, but is regularly, as required, reported in amount to the Comptroller, who issues his warrant to the City Register to receive the same.

The change in the system of accounts, contrary to the anticipations of some of the departments, has been put into practice without embarrassment anywhere. It has, to be sure, greatly increased the labors of the Register's and Comptroller's Office, but its efficacy as a system is acknowledged by all who are cognizant of its operations.

The City provides the means of carrying out the purposes of the Police Department for the City of Baltimore; the sum of $683,000 having been paid by the City on that account from October 31st, 1876, to January 1st, 1878, and no sound reason can be given for exempting that department from the monetary investigations and responsibilities of the departments of the City Government. The departments of the City require duplicate bills to be rendered, one of which must be retained by them, and the other sent to the City Comptroller, accompanied with a warrant on that officer for the payment thereof. They also have duplicate pay-rolls of their Officers made out, one of which is sent to the Comptroller with a warrant on him for the amount and the other is retained in their respective departments.

If this regulation is wise and proper for the several departments and commissions of the City Government, I can perceive no reason why it is not sound, when applied to the monetary affairs of the Department of Police. In fact the

Statute of 1874, Chapter 146, Sec. 816, says "it shall be the duty of the Comptroller of the City of Baltimore to examine all bills and accounts presented by said Board of Police Commissioners, and the vouchers therefor." This part of the Act of Assembly means something, but its application by the Police Board renders it of no avail, because neither bills, accounts nor vouchers have at any time been "*presented*" by the Commissioners to the City Comptroller for examination. They draw their warrants in bulk every two weeks on the Comptroller of the City to pay their bills, and there is no ordinance of the City which requires the Comptroller to withhold payment of the warrants unless the bills and pay-rolls upon which such warrants are based shall be presented to him for examination. There is nothing, in my judgment, in the Statute organizing the Department of Police inconsistent with this system of checks and responsibilities, if applied to that department and it is not at all likely that the adoption of an Ordinance or resolution by the Mayor and City Council in that connection would be unfavorably viewed by the Commissioners of Police. Such a law would not certainly interfere with any legal right they now possess under the laws of the State.

Of the old claims of the City on account of the sales of Stalls in the new Market Houses, it may be perceived by the report in the table of receipts and disbursements that the sum of $15,174.81 was paid into the City treasury on this account during the year just expired, which makes the gross sum I have collected from such claims $31,171.61. Suits at law have been instituted in many cases which have not been decided. The Attorneys employed by some of the parties that have been sued have raised points in law denying the right of the City to enforce the payment of these claims.

On this account I have not placed additional claims in the hands of the City Solicitor to enforce payment, while other delinquents have taken advantage of the doubts raised, and failed to make payments of even renewal notes. I have been in daily expectation of a decision in one of the Courts of the City or County in connection with the issue made, and deem it inadvisable, therefore, in which opinion I am sustained by the City Solicitor, to proceed further until the Court or Courts shall act in the matter. That being done, I will proceed as well as I can to close up, in some form, the entire business referred to. It has proved much more embarrassing than I supposed it would be, yet it is gratifying to know that the labor has put the City in possession of over thirty-one thousand dollars.

For information in detail, connected financially with the operations of the Department of the City Comptroller, I respectfully invite your attention to the subjoined tables.

Table A is a statement of the amount charged and credited to the City Register.

Table B shows the amount of taxes collected from November 1st, 1876, to December 31st, 1877, and the amount charged to the City Collector for taxes in arrears.

Table C is a statement of the receipts and disbursements of Markets, sale of Stalls in Markets, general license, public halls and wharfage accounts.

Table D is a statement of the several Courts, Supreme Bench, Coroners and Post Mortems, Removed Cases, Fines, Judgments and Suits, Baltimore City Jail, Magistrates and Registration Accounts.

Table E is an exhibit of the receipts from taxes and other sources, and payment on account of interest on Stock Debt, and statement of the accounts for Government tax, Jones'

Falls Stock of 1900, Jones' Falls Improvement, Police and Fire Alarm Telegraph, Permanent Water Supply, Water Board, Loans Western Maryland Railroad Co., General Interest and Sinking Funds.

Table F is a statement of receipts and disbursements on account of Parks and Squares.

Table G is a statement of the receipts and disbursements on account of the Health Department, Harbor Board, City Collector, City Poor, Dispensaries, Tax Sales, State Police, Taxes refunded, Public Printing, Fire Department, Sale of City Property, Special Appropriations and Public Schools.

Table H is a statement of the amounts appropriated and expended by the City Commissioner and Inspector of Buildings, and also the amount appropriated and expended for sundry accounts.

Table I shows the amount received and paid for opening, closing and widening, and for paving sundry streets.

I have the honor to be,

Very respectfully, your obedient servant,

JOSHUA VANSANT,

Comptroller of the City.

APPENDIX.

TABLE A.

Dr. JOHN A. ROBB, *City Register, in account with*

1876.				
November	1	To balance		$308,334 70
"	30	To Cash		360,640 01
December	30	"		696,522 09
1877.				
January	31	"		568,633 37
February	28	"		943,553 16
March	31	"		505,786 05
April	30	"		895,710 09
May	31	"		837,859 23
June	30	"		778,938 31
July	31	"		441,401 05
August	31	"		240,041 30
September	30	"		3,032,944 75
October	31	"		1,142,944 75
November	30	"		613,081 83
December	31	"		1,118,680 82
				$12,485,071 51

TABLE A.

the Mayor and City Council of Baltimore. Cr.

1876.					
November	30	By Comptroller's warrants.....		$844,460	45
December	30	"	"	876,140	46
1877.					
January	31	"	"	417,416	48
February	28	"	"	447,643	68
March	31	"	"	901,622	55
April	30	"	"	508,427	41
May	31	"	"	841,783	09
June	30	"	"	936,010	93
July	31	"	"	471,297	50
August	31	"	"	1,695,593	39
September	30	"	"	1,755,372	86
October	31	"	"	1,097,507	75
November	30	"	"	764,284	57
December	31	"	"	623,833	85
		By balance.....		303,676	54
				$12,485,071	51

TABLE B.

Collection of Taxes, Opening Streets, &c., made by the City Collector, from November 1st, 1876, to December 31st, 1877.

	1871.	1872.	1873.	1874.	1875	1876.	1877.	TOTAL.
Internal Improvements.....	$ 70	$ 75 51	$ 1,143 41	$ 11,731 35	$ 6,972 40	$ 49,897 52	$105,649 27	$175,470 16
State Police.....	3 99	158 59	6,288 77	26,982 15	24,403 24	149,692 56	332,040 58	539,569 88
Certain Expenses.....	1 26	60 41	1,715 10	9,385 11	9,296 48	42,769 33	166,020 29	229,247 98
Criminal Court.....	56	22 65	857 56	3,519 41	3,486 19	21,384 63		29,271 00
Public Schools.....	1 82	135 93	4,859 49	24,635 85	24,403 24	135,436 12	286,762 32	476,234 77
City Poor.....	91	37 75	1,429 27	7,038 80	5,810 33	35,641 08	90,556 52	140,514 66
Direct Tax.....	7 00	589 01	21,217 47	78,906 80	87,154 55	613,026 62	1,071,585 43	1,872,486 88
Miscellaneous Stocks.....	3 50	135 93	5,717 07	34,020 92	31,375 59	192,461 82	452,782 55	716,497 38
Opening Streets.....	98		1,715 10	3,519 41	10,458 53	21,384 63	90,556 52	127,635 17
City Hall Sinking Fund...	28	15 10	857 56	3,519 41	2,324 14	14,256 42	30,185 48	51,158 39
Funded Debt, 1868.....				1,173 15	1,162 03	7,128 17	15,092 76	24,556 11
Jones' Falls Sinking Fund				2,346 25	1,162 03			3,508 28
Funded Debt, 1874.....				2,346 25	1,162 03			3,508 28
Highways and Bridges.....			432 56	1,406 59				1,839 15
	21 00	$1,230 88	$46,233 36	$210,531 45	$209,170 78	$1,283,078 90	$2,641,231 72	$4,391,498 09
Interest.....	6 40	310 58	8,317 74	29,734 59	16,235 03	7,668 54		62,272 88
Discount.....						2,578 07	192,844 08	195,422 15
	$27 40	$1,541 46	$54,551 10	$240,266 04	$225,405 81	$1,293,325 51	$2,834,075 80	$4,649,193 12
Opening, Closing and Widening Streets, &c. ..								{ 145,888 66 { 130,607 25
Paving Streets and Alleys								759 56
Advertising.....								
								$4,926,448 59

TABLE B—Concluded.

Amount charged against the City Collector, December 31st, 1877.

Year.	Levy.	City Direct.		Levy.	Real Exempt.		Levy.	Personal Exempt.	
									$499 56
1874	163	$ 2,188,869 00	$ 35,678 56	161	$300,114 00	$4,831 83	111	$45,006 00	.....
1875	180	16,552,146 00	297,938 62	.....	.....	.....	.....	.....	.....
1876	180	30,503,107 00	549,055 92	.....	.....	.....	.....	.....	.....
1877	175	94,158,153 00	1,647,767 68	.....	.....	.....	.....	.....	.....
.....	.....	.....	$2,530,440 78	.....	.....	$4,831 83	.....	.....	$499 56

City Direct	$2,530,440 78
Real Exempt	4,831 83
Personal Exempt	499 56
	$2,535,772 17

TABLE C.

Receipts and Expenditures on account of Markets.

	DR.	CR.
Hanover Market		$ 5,488 27
Belair "		10,466 95
Cross st. "		2,916 30
Lexington "		12,665 55
Hollins "		3,834 20
Centre "		9,185 54
Richmond "		3,768 47
Fells' Point "		5,955 41
Lafayette "		459 00
		$54,739 69
EXPENSES OF CLEANING, REPAIRS, &c.		
Hanover Market	$2,532 43	
Belair "	3,076 49	
Cross st. "	1,214 30	
Lexington "	1,372 41	
Hollins "	2,881 95	
Centre "	4,461 82	
Richmond "	583 59	
Fells' Point "	1,065 88	
Lafayette "	226 80	
	$17,415 67	
Less appropriations per Ordinance No. 58 and Resolutions 144, 203 and 237 for repairs, hose, &c	$12,422 41	
		$4,992 26
Net revenue		$49,746 43

TABLE C—Continued.

Amounts received for sale of stalls in markets.

	DR.	CR.
Lafayette Market		$2,629 34
Cross st. "		2,709 80
Lexington "		3,123 08
Belair "		192 90
Richmond "		6,519 69
To balance, December 31st, 1877	$15,174 81	
	$15,174 81	$15,174 81

General Licenses.

	DR.	CR.
Received from licenses for wagons, carts, drays, billiards, &c		$31,551 70
Appropriation Ordinance, No. 58, 1877		1,200 00
Paid expenses of painting, advertising, &c	$ 902 81	
Balance, December 31st, 1877	31,848 89	
	$32,751 70	$32,751 70

TABLE C—Continued.

Public Halls.

	DR.	CR.
Broadway Hall—		
Appropriation Ordinance, No. 58, 1877		$150 00
Received for rent		115 00
Paid expense for cleaning	$ 167 58	
Cross Street Hall—		
Received for rent		711 00
Paid expense of cleaning, repairs, &c	322 35	
Hollins Street Hall—		
Received for rent		50 00
Balance, December 31st, 1877	536 07	
	$1,026 00	$1,026 00

TABLE C—Concluded.

Collection of Wharfage from November 1st, 1876, to December 31st, 1877.

Date.	1st District.	2d District.	3d District.	4th District.	5th District.	Aggregate.
November, 1876.....	37 50	327 87	560 02	407 43	1,763 14	3,095 96
December, "	55 75	328 13	618 53	380 93	1,800 50	3,183 84
January, 1877.....	42 24	132 87	370 91	375 71	1,197 25	2,118 98
February, "	87 50	53 20	344 99	220 33	878 26	1,584 28
March, "	43 75	157 17	518 63	340 07	1,001 25	2,060 87
April, "	30 00	203 48	544 42	353 38	1,341 08	2,472 36
May, "	25 83	243 00	446 80	304 82	1,433 24	2,453 69
June, "	43 75	311 05	402 90	310 34	1,492 17	2,560 21
July, "	31 00	258 74	452 92	378 02	1,620 04	2,740 72
August, "	20 00	237 10	502 11	477 11	1,269 19	2,505 51
September, "	43 75	306 40	719 89	478 45	1,449 18	2,997 67
October, "	59 37	327 89	595 48	425 45	1,067 28	2,475 47
November, "	44 91	217 85	501 53	450 13	1,319 42	2,533 84
December, "	55 00	246 01	347 69	484 31	1,219 16	2,352 17
	$620 35	$3,350 76	$6,926 82	$5,386 48	$18,851 16	$35,135 57

Total collections from November 1st, 1876, to December 31st, 1877...$35,135 57

Less expenses for commissions and incidentals..... 7,658 98

Net revenue.....$27,476 59

TABLE D.

Superior Court.

		DR.	CR.
By appropriation Ordinance No. 58			$21,500 00
" " Resolution " 113			725 00
To amount paid Clerk	$ 1,389 96		
" " " Crier	1,750 00		
" " " Bailiffs	7,000 00		
" " " Jurors	10,941 50		
" " " Drawing Jurors	280 00		
" " " Sheriff	257 80		
" " " Janitor	420 00		
" " " Rebinding books	694 80		
By Balance Dec. 31, 1877			509 06
		$22,734 06	$22,734 06

TABLE D—Continued.

Criminal Court.

	DR.	CR.
By appropriation Resolution No. 47		$ 300 00
" " Ordinance " 58		85,000 00
" amount received from City Collector.....		29,271 00
To amount paid State's Attorney.....	$19,157 96	
" " " Clerk	20,493 70	
" " " Sheriff.....	13,406 83	
" " " Bailiffs.....	12,250 00	
" " " Drawing Jurors.....	260 00	
" " " Incidentals.....	1,376 90	
" " " Grand and Petit Juries and Witnesses...	23,183 20	
" " " Board of Jurors.....	1,272 07	
" Balance, Dec. 31, 1877.....	23,170 34	
	$114,571 00	$114,571 00

TABLE D—Continued.

Court Common Pleas.

	DR.	CR.
By appropriation Ordinance No. 58...		$25,000 00
To amount paid Clerk.....	$1,703 50	
" " " Crier.....	1,750 00	
" " " Bailiffs.....	7,000 00	
" " " Drawing Jurors.....	240 00	
" " " Sheriff.....	1,491 00	
" " " Jurors.....	11,817 50	
" " " Incidentals.....	202 31	
To balance, December 31, 1877.....	795 69	
	$25,000 00	$25,000 00

Circuit Court.

	DR.	CR.
By appropriation, Ordinance No. 58...		$10,000 00
To amount paid Bailiffs and Messenger.....	$8,750 00	
To amount paid Clerk.....	207 65	
" " " Watchman	1,050 00	
" " " Drawing Jurors.....	260 00	
" " " Jurors.....	10 00	
" " " Incidentals.....	730 60	
By balance, December 31, 1877.....		1,008 25
	$11,008 25	$11,008 25

TABLE D—Continued.

Baltimore City Court.

	DR.	CR.
By appropriation, Ordinance No. 58...		$26,000 00
To amount paid Clerk.....	$3,723 50	
" " " Crier.....	1,750 00	
" " " Bailiffs.....	7,000 00	
" " " Drawing Jurors.....	280 00	
" " " Sheriff.....	1,091 20	
" " " Jurors.....	9,298 00	
" " " Incidentals.....	610 75	
To balance, December 31, 1877.....	2,246 55	
	$26,000 00	$26,000 00

Orphans' Court.

	DR.	CR.
By appropriation, Ordinance No. 58...		$7,833 00
" " Resolution " 241...		350 00
To amount paid Judges.....	$6,570 00	
" " " Bailiff.	1,460 00	
" " " Janitor..... ..	816 62	
" " " Incidental.....	545 05	
By balance, December 31, 1877.....		1,208 67
	$9,391 67	$9,391 67

TABLE D—Continued.

Supreme Bench.

	DR.	CR.
By appropriation, Ordinance No. 58...		$2,800 00
To amount paid Judges.....	$2,500 00	
To amount paid City Collector for furnishing list of tax-payers.....	150 00	
To balance, December 31, 1877.....	150 00	
	$2,800 00	$2,800 00

Coroners and Post Mortems.

	DR.	CR.
By appropriation, Ordinance No. 58...		$2,300 00
To amount paid salaries of Coroners...	$1,700 00	
" " " for post mortems, as per Resolution No. 8:		
To Dr. O. J. Coskery.....	75 00	
" Dr. John Neff.....	25 00	
" Dr. J. H. Preston.....	25 00	
" Dr. Edmund Walker	25 00	
To balance, December 31, 1877.....	450 00	
	$2,300 00	$2,300 00

TABLE D.—Continued.

Removed Cases.

	DR.	CR.
By appropriation, Ordinance No. 58...		$16,000 00
By amount received from Baltimore County.....		8,351 07
By amount received from Howard County.....		749 33
To amount paid to sundry parties.....	$14,871 61	
To Balance, Dec. 31, 1877.....	10,228 79	
	$25,100 40	$25,100 40

Fines.

	DR.	CR.
By appropriation, Ordinance No. 58...		$1,000 00
By amount from Augustus Albert, Sheriff.....		988 18
By amount from S. S. Mills, Sheriff....		2,766 07
" " J. V. L. Findlay, City Solicitor		3 00
To amount paid to Magistrates and Constables.....	$ 326 95	
By Balance, Dec. 31, 1877.....	4,430 30	
	$4,757 25	$4,757 25

TABLE D.—Continued.

Judgments and Suits.

	DR.	CR.
By appropriation, Ordinance No. 58...		$ 3,000 00
" amount from Jno. Lee Chapman on account of a claim due the City.....		1,000 00
To amount paid sundry parties.....$ 3,322 98		
" agreed upon by the arbitrators for purchase of Harman's Bridge..... 15,000 00		
By Balance, Dec. 31, 1877.....		14,322 98
	$18,322 98	$18,322 98

Baltimore City Jail.

	DR.	CR.
By appropriation, Ordinance No. 58, 1877.....		$48,000 00
" appropriation, Ordinance No. 3, 1877.....		4,657 26
" amount from U. S. Government for board of prisoners and from sale of refuse.....		1,997 05
To amount paid on warrants of the Board of Visitors.....	$58,700 53	
By Balance, Dec. 31, 1877.....		4,046 22
	$58,700 53	$58,700 53

TABLE D—Concluded.

Magistrates.

	DR.	CR.
By appropriation, Ordinance No. 58,		$16,000 00
By amount received, City's proportion of Fines		1,015 25
To amount paid for salaries	$16,975 00	
" " substitutes	1,054 00	
" " fines remitted	69 00	
" " stationery	32 50	
By Balance, December 31st, 1877	1,115 25	
	$18,130 50	$18,130 50

Registration.

	DR.	CR.
By appropriation, Ordinance No. 58:		
Favor F. Raine		$64 30
" A. S. Abell & Co		17 10
" Hermange & Brewer		33 15
For room rent		900 00
For salaries and incidentals		16,000 00
By appropriation, Resolution No. 1, For salaries		10,300 00
To amount paid for salaries, room rent, stationery, &c	$25,128 43	
To Balance, December 31st, 1877	2,186 12	
	$27,314 55	$27,314 55

TABLE E.

Receipts from taxation and other sources and payments on account of interest on the Stock Debt.

	DR.	CR.
Received from the City Collector, on account of the tax levy for Internal Improvements.....		$175,470 16
Received from the City Collector, on account of tax levy for miscellaneous stock.....		716,497 38
Received from Baltimore & Ohio R. R. Co. interest on $5,000,000 loan.....		375,000 00
Received from the Commissioners of Finance, dividend on 32,500 shares of B. & O. R. R. stock..		422,500 00
Paid interest on the Stock Debt...	$1,505,470 47	
To Balance, December 31, 1877..	183,997 07	
	$1,689,467 54	$1,689,467 54

TABLE E—Continued.

Government Tax.

	DR.	CR.
By amount received from the U. S. Government, for taxes erroneously paid on dividend of the B. & O. R. R. Co's stock.....		$13,500 00
To amount paid for collecting the above.....	$ 2,025 00	
To Balance, December 31, 1877...	11,475 00	
	$13,500 00	$13,500 00

Jones' Falls Stock of 1900.

	DR.	CR.
By balance, November 1st, 1876...		$455,400 83
" amount received, proceeds of sale of stock.....		152,017 75
To Balance, December 31, 1877...	$607,418 59	$607,418 59

TABLE E—Continued.

Improvement of Jones' Falls.

	DR.	CR.
To Balance, November 1, 1876....	$298,258 47	
" amount paid from November 1, 1876, to December 31, 1877,	278,588 18	
By amount received for sale of old material.....		$ 328 19
" Balance, December 31, 1877...		576,518 46
	$576,846 65	576,846 65

Police and Fire Alarm Telegraph.

	DR.	CR.
By appropriation, Ordinance No. 163.....		$55,000 00
By appropriation, Ordinance No. 58.....		11,869 49
By appropriation, Resolution No. 205.....		700 00
By appropriation, Ordinance No. 3,		738 08
To amount paid for new telegraph,	$55,000 00	
" " " salaries, &c.....	12,604 58	
" Balance, December 31, 1877...	702 99	
	$68,307 57	$68,307 57

TABLE E—Continued.

Permanent Water Supply.

	DR.	CR.
By Balance, November 1, 1876...		$ 102,514 23
" proceeds of sale of stock.....		886,600 00
To amount paid on warrants of the Water Board.....$1,094,932 67		
By Balance, Dec. 31, 1877.....		105,818 44
	$1,094,932 67	$1,094,932 67

Water Board.

	DR.	CR.
By Balance, November 1, 1876.....		$414,164 41
" appropriation, Ordinance No... 58.....		700 00
" amount received for water rents		562,196 00
To amount paid on warrants of the Water Board for interest on Water Loan, salaries, &c...	$671,961 10	
" Balance, Dember 31, 1877.....	305,099 31	
	$977,060 41	$977,060 41

TABLE E.– Continued.

Loans.

	DR.	CR.
By Balance, November 1st, 1876.		$775,000 00
By amount borrowed from sundry parties..		4,259,159 00
To amount paid to sundry parties.	3,484,659 00	
To Balance, Dec. 31, 1877..... ...	1,549,500 00	
	1,034,159 00	$5,034,159 00

Western Maryland Railroad Company.

	DR.	CR.
To Balance, November 1st, 1876..	$796,167 57	
To amount paid by the city, from November 1, 1876, to December 31, 1877, interest on the bonds guaranteed by the Mayor and City Council of Baltimore.....	142,365 00	
By Balance, Dec. 31, 1877.....		$938,532 57
	$938,532 57	$938,532 57

TABLE E—Concluded.

Receipts on account of Sinking Funds.

	DR.	CR.
Received from City Passenger Railways for Park Sinking Fund..		$10,370 53
Received from City Collector:		
For Jones' Falls Sinking Fund		3,508 28
For City Hall Sinking Fund...		51,158 39
For Funded Debt 1868.....		24,556 11
For Funded Debt 1874.....		3,508 28
Paid Commissioners of Finance...	$93,101 59	
	$93,101 59	$93,101 59

General Interest.

	DR.	CR.
By appropriation, Ordinance No. 58.....		$120,000 00
By amount received from the City Collector for interest on arrearages of taxes.....		257,695 03
By amount received, interest on accounts due the Mayor and City Council.....		5,968 87
To amount of discount on taxes...	$195,422 15	
To interest on loans and debts due by the Mayor and City Council.....	119,647 04	
To Balance, December 31. 1877...	68,594 71	
	$383,663 90	$383,663 90

TABLE F.

Druid Hill and Patterson Parks.

	DR.	CR.
By Balance, Nov. 1, 1876		$16,690 54
" appropriation, Ordinance No. 58		21,000 00
" amount received from Passenger Railway Companies, as follows:		
From City Passenger Railway Co.		74,165 53
From Citizens' Railway Co.		13,740 51
" York Road " "		1,205 10
" Baltimore, Peabody Heights & Waverly Railway Co.		6,038 32
" amount received from Park Board on account of Druid Hill Park		2,223 43
" amount received from Park Board on account of Patterson Park		368 75
To amount paid on warrants of the Park Commissioners, account of Druid Hill Park	$63,171 21	
" interest paid on stock debt	41,667 20	
" amount paid on warrants of the Park Commissioners, account of Patterson Park	14,411 04	
" interest paid on Patterson Park extension loan	12,000 00	
" Balance, Dec. 31, 1877	4,182 73	
	$135,432 18	$135,432 18

TABLE F—Concluded.

Riverside Park.

	DR.	CR.
By Balance, November 1st, 1876.		$2,003 98
" appropriation Ordinance, No. 105, 1876, to purchase railing from Union Square.....		3,000 00
" appropriation, Ordinance No. 58, 1877, for rent.....		3,771 00
" appropriation, Ordinance, No. 58, 1877, for general expenses.		20,000 00
To amount paid for iron railing....	$3,000 00	
" " " " rent.....	5,655 93	
" " " on warrants of the Park Board.	20,893 62	
By Balance, December 31, 1877.		774 57
	$29,549 55	$29,549 55

Public Squares, Springs, &c.

	DR.	CR.
Mount Vernon Squares.....	$16,100 00	$18,150 00
Broadway Squares.....	2,366 27	2,500 00
Eutaw Squares.....	9,198 81	9,300 00
Harlem Square.....	5,466 99	6,432 35
Madison Square.....	3,094 38	3,396 23
Lafayette Square.....	1,863 97	2,000 00
Franklin Square.....	771 04	2,000 00
Jackson Square.....	707 68	1,000 00
Park Place Square.....	998 43	1,000 00
Union Square.....	3,162 54	3,162 54
Perkins' Spring.....	3,746 39	4,299 52
Eastern Spring.....	909 78	1,500 00
Baker Circle.....	100 00	200 00
	$48,486 28	$54,940 64

TABLE G.

Health.

	DR.	CR.
By appropriation, Resolution, No. 16, 1877, for cleaning streets, (special)		$10,000 00
" appropriations for general health account, as follows:		
Ordinance, No. 58, 1877...		35,000 00
Resolution, No. 232, " ..		1,175 00
Ordinance, No. 3, " ...		1,548 71
" appropriations for cleaning streets, as follows:		
Ordinance, No. 58, 1877...		177,000 00
Resolution, No. 232, " ..		8,825 00
Ordinance, No. 3," ...		3,974 83
" appropriation for nuisances and sewers, as follows:		
Ordinance, No. 58, 1877...		6,500 00
" " 3, " ...		1,222 73
" appropriations for Marine Hospital, as follows:		
Ordinance, No. 58, 1877, for repairs		1,750 00
Ordinance, No. 58, 1877, for general expenses		15,000 00
" amount received from Marine Hospital fees		7,314 74
" amount received from sale of refuse		2,779 60
Amount carried forward.		$272,090 61

TABLE G.—Continued.

Health.

	DR.	CR.
Amount brought forward...		$272,090 61
To amount paid on account of general health, salaries, &c...$	42,244 27	
" amount paid for cleaning streets and removing garbage	228,945 43	
" amount paid for removal of nuisances.....	8,392 44	
" amount paid for warrants of Health Department, for Marine Hospital.....	20,105 27	
" amount paid for repairs to Marine Hospital.....	1,750 00	
By Balance, December 31, 1877...		29,346 80
	$301,437 41	$301,437 41

Amounts expended by the Harbor Board.

	DR.	CR.
For dredging, salaaies and incidentals.....	$214,536 66	$218,017 05
For Hanover Street Wharf.....	2,634 39	2,787 50
" Charles "	3,614 78	4,000 00
" Repairs of Wharves.....	2,466 59	5,000 00
" Building Ice Boat.....	20,087 90	140,000 00
" Building shed at Bowly's Wharf.....	300 00	300 00
	$243,640 32	$370,104 55

TABLE G.—Continued.

City Collector.

	DR.	CR.
By appropriation, Ordinance No. 58		$40,000 00
To amount paid for salaries and incidental expenses of City Collector's office and Appeal Tax Court	$47,666 75	
By Balance, December 31, 1877		7,666 75
	$47,666 75	$47,666 75

City Poor.

	DR.	CR.
By amount received from City Collector on account of tax levy		$140,514 66
" amount received from the Sheriff for use of Dispensaries		$5,419 10
Paid to Dispensaries	$5,325 10	
By appropriation, Ordinance No. 58, for conveying poor to homes		2,000 00
Paid for conveying poor to homes.	1,073 04	
Amount carried forward	$6,398 14	$147,933 76

TABLE G—Continued.

City Poor.

	DR.	CR.
Amount brought forward...	$6,398 14	$147,933 76
By appropriation, Ordinance No. 58, for insurance of Bayview Asylum...		862 50
Paid for insurance of Bayview Asylum.....	1,725 00	
By appropriation, Ordinance No. 58, for Maryland Lying-in Asylum		1,267 50
Paid to Maryland Lying-in Asylum.....	1,267 50	
By appropriation, Ordinance No. 58, for Mount Hope Retreat..		5,000 00
Paid to " " "	6,877 88	
By appropriation, Ordinance No. 58, for indigent sick at Universities.....		10,000 00
Paid to University of Maryland...	5,445 10	
" " Washington University...	6,227 29	
By appropriations, Ordinance Nos. 58 and 80 for Deaf and Dumb.....		850 00
Paid to Agent of Deaf and Dumb..	836 25	
By appropriation, Ordinance No. 28, for Widows and Orphans, War 1812.....		200 00
Paid Widows and Orphans, War 1812.....	200 00	
Amount carried forward....	$28,977 16	$166,113 76

TABLE G—Continued.

City Poor.

	DR.	CR.
Amount brought forward...	$28,977 16	$166,113 76
By appropriation, Ordinance No. 58, for Old Defenders, War 1812.....		300 00
Paid Old Defenders, War 1812....	300 00	
By appropriation, Ordinance No. 58, for Maryland Hospital for Insane.....		20,000 00
Paid Maryland Hospital for insane	14,527 33	
By appropriation, Ordinance No. 58, for Bayview Asylum.....		65,000 00
" amount of board from Inmates and resident students, sale of refuse, &c		2,030 21
Paid warrants of Trustees of Bayview Asylum.....	69,598 68	
To Balance, Dec. 31, 1877.....	140,040 80	
	$253,443 97	$253,443 97

TABLE G—Continued.

Dispensaries.

	DR.	CR.
By appropriation, Ordinance No. 58:		
For Southern Dispensary.....	$ 600 00	$1,200 00
" Eastern "	1,200 00	1,200 00
" Balt. General "	600 00	1,200 00
" " Special "	600 00	600 00
" Northeastern "	600 00	600 00
" Northwestern "	600 00	600 00
" Central "	600 00	600 00
" University of Maryland....	600 00	600 00
" Washington University.....		600 00
To Balance, December 31, 1877...	1,800 00	
	$7,200 00	$7,200 00

Tax Sales.

	DR.	CR.
By appropriation, Ordinance No. 58.....		$8,000 00
" amount received from sundry parties for redemption of lots previously sold..		12,927 16
To amount paid for purchases by the Mayor and City Council to secure taxes..... ...	$21,247 78	
By Balance, December 31, 1877...		320 62
	$21,247 78	$21,247 78

TABLE G—Continued.

State Police.

	DR.	CR.
By amount from City Collector, on account of the tax levy for the Police Department.....		$539,569 88
By appropriation, Ordinance No. 58.....		598,000 00
To amount paid on warrants of the Police Commissioners.....$683,000 00		
To Balance, December 31, 1877,	454,569 88	
	$1,137,569 88	$1,137,569 88

Taxes Refunded.

	DR.	CR.
To amount of taxes refunded to sundry parties by order of the Appeal Tax Court.....	$7,750 17	
By Balance, December 31, 1877...		$7,750 17
	$7,750 17	$7,750 17

TABLE G—Continued.

Public Printing.

	DR.	CR.
By appropriation, Ordinance No. 58		$6,000 00
By appropriation, Ordinance No. 58, favor of F. Raine		45 97
By amount received from City Collector		759 56
By amount received from City Commissioner		42 00
To amount paid for advertising, &c.	$2,614 36	
To Balance, December 31, 1877	4,233 17	
	$6,847 53	$6,847 53

Fire Department.

	DR.	CR.
By appropriation, Ordinance No. 58		$160,000 00
By appropriation, Ordinance No. 58, to establish a new hook and ladder company		2,800 00
By amount received from sale of equipments, refuse, &c		3,203 76
To amount paid on warrants of Fire Commissioners	$185,455 59	
By Balance, December 31, 1877		19,451 83
	$185,455 59	$185,455 59

TABLE G—Continued.

Sale of City Property.

	DR.	CR.
By amount received from sale of Primary School Building No. 23,		$ 879 87
By amount received from sale of Primary School Building No. 2,		100 00
By amount received from sale of Property of City Yard...		12,624 95
To amount paid for Auctioneer's Commissions, advertising, &c...	$ 1,481 87	
To Balance, December 31, 1877...	12,122 95	
	$13,604 82	$13,604 82

Special Appropriations.

	DR.	CR.
Favor of Geo. Kuhn, Res. 310, 1876.....	$ 3 19	3 19
" L. E. Littig, Res. 311, 1876.....	9 66	9 66
" J. W. Bechtel, Resolution, 333, 1876.....	10 00	10 00
" W. S. Raynor, Res. 6, 1877.....	174 19	174 19
" F. E. Davis, Res. 7, 1877.....	1,000 00	1,000 00
" A. E. Forrester and J. N. Bowen, Trustees, Resolution 22, 1877...	253 18	253 18
" Dr. J. F. McShane, Resolution 28, 1877.....	500 00	500 00
" J. F. Byrne, Res. 34, 1877.....	200 00	200 00
" Dr. W. W. White, Resolution 36, 1877.....	25 00	25 00
Amounts carried forward.....	$2,175 22	$2,175 22

TABLE G—Continued.

Special Appropriations.

	DR.	CR.
Amounts brought forward.....	$2,175 22	$2,175 22
Favor of D. M. Moore, Res. 44, 1877.	118 33	118 33
" J. S. Glenn, " " " ..	118 33	118 33
" W. F. Rogers," " " ..	118 33	118 33
" Dr. J. D. Iglehart, Resolution 73, 1877.....	25 00	25 00
" Dr. Jno. Neff, Res. 74, 1877.	50 00	50 00
" Dr. A. H. Powell, Resolution 75, 1877.....	25 00	25 00
" Dr. Wm. Green, Resolution 76, 1877.....	25 00	25 00
" Dr. J. B. Boyle, Resolution 77, 1877.....	25 00	25 00
" G. W. Pappler, Resolution 78, 1877.....	67 58	67 58
" J. H. B. Latrobe, Resolution 89, 1877.....	72 67	72 67
" C. Hax & Son, Resolution 138, 1877.....	555 06	555 06
" S. J. Martenet, Resolution 147, 1877.....	75 00	75 00
" E. R. Walker, Resolution 149, 1877.....	25 00	25 00
" B. F. Bennett, Resolution 153, 1877.....	1,000 81	1,000 81
" G. S. Griffith & Co., Resolution 155, 1877	600 00	600 00
" J. W. & T. H. Boult, Resolution 154, 1877.....	80 75	80 75
" W. H. Oler, Res. 163, 1877.	239 82	239 82
Amounts carried forward.....	$5,396 90	$5,396 90

TABLE G—Continued.

Special Appropriations.

	DR.	CR.
Amount brought forward.....	$5,396 90	$5,396 90
Favor of Andrew Banks, Resolution 200, 1877.....	211 54	211 54
" Jno. McGinn, Resolution 201, 1877.....	40 00	40 00
" W. J. Cousins, Resolution 176, 1877.....		15 55
" James Conley, Resolution 192, 1877.....	10 00	10 00
" E. B. Cunningham, Resolution 202, 1877.....	40 00	40 00
" Dr. J. T. Sledge, Resolution 206, 1877.....	25 00	25 00
" C. B. Hoepner, Resolution 215, 1877.....	24 00	24 00
" C. P. Stevens, Resolution 216, 1877.....	49 03	49 03
" Fred'k Eckhardt, Ordinance 80, 1877.....		200 00
" Dennis Kavanaugh, Resolution 221, 1877.....	44 59	44 59
" Daniel Murray, Resolution 222, 1877.....	36 40	36 40
" R. M. Spiller, Resolution 224, 1877.....	128 00	128 00
" D. A. Fenton, Resolution 229, 1877.....	175 00	175 00
" H. P. Mowinkle, Resolution 229, 1877.....	175 00	175 00
" Geo. Warfield, Resolution 239, 1877.....	35 91	35 91
Amounts carried forward.....	$6,391 37	$6,606 92

TABLE G.—Concluded.

Special Appropriations.

	DR.	CR.
Amounts brought forward.....	$6,391 37	$6,606 92
Favor of S. J. Martenet, Resolution 242, 1877.....	148 00	148 00
" Salvage Corps, Resolution 6, 1877.....	150 00	150 00
To Balance, December 31, 1877.....	215 55	
	$6,904 92	$6,904 92

Public Schools.

	DR.	CR.
By appropriation, Ordinance No. 58.....		$620,000 00
" amount from City Collector on account of tax levy.....		476,234 77
" amount from State Comptroller, City's proportion of State tax.....		155,402 51
" amount from H. M. Cowles, Secretary, for tuition, &c...		58,601 99
" amount from J. F. Plummer, Executor.....		129 59
To amount paid for salaries and other expenses for white schools.....	$656,376 41	
" amount paid on account of colored schools.....	55,581 11	
" Balance, December 31st, 1877.....	598,411 34	
	$1,310,368 86	$1,310,368 86

TABLE H.

Amounts expended by City Commissioner.

	DR.	CR.
City Commissioner, for salaries and incidental expenses	$11,611 20	$10,100 00
Repairs of Sewers	9,919 60	10,595 80
" Lamps	2,477 94	3,083 43
" Paved Streets	40,149 84	40,200 73
" Bridges	6,000 90	6,352 00
" Unpaved Streets	1,416 04	1,500 00
" Washington Road	124 25	200 00
Pennsylvania Avenue Sewer	9,184 76	21,000 00
Harford Run Sewer	3,924 15	25,000 00
Pine Street "	16,654 28	17,305 68
Pratt " "	5,184 41	5,185 99
Race " "	2,781 18	9,000 00
Carey " "	34,766 10	45,000 00
Pearl " "	13,298 37	15,000 00
Light " "	96 15	20,000 00
Broadway "	36,934 00	37,000 00
Extension of Pearl Street Sewer	3,871 27	5,000 00
Lamp pillars and Lamps	3,216 25	5,000 00
Cross Streets	53,767 23	53,846 99
Flag and Stepping stones	24,192 40	24,168 38
Paving in front of City Property	852 34	1,000 00
Argyle Avenue Bridge	19,469 34	20,000 00
Calvert Street "	165 80	15,000 00
John " "	6,778 00	7,200 00
Shelling East Baltimore Street	174 00	267 80
" Loney's Lane	262 80	300 00
Repaving Streets	3,345 48	4,000 00
Inlets at McMechen Street	2,501 25	2,000 00
Iron plates at sundry Streets	11,260 20	12,000 00
Amounts carried forward...	$324,379 53	$416,306 80

TABLE H—Continued.

Amounts expended by City Commissioner.

	DR.	CR.
Amounts brought forward...	$324,379 53	$416,306 80
Changing grade of Greenmount Avenue.....	687 12	880 00
Purchase of lot corner Eager and Cathedral Streets.....	360 00	360 00
Culvert on Bayard Street.....	1,700 00	1,700 00
Culvert intersection of Oliver and Burke Streets.....	935 90	935 90
	$328,062 55	$420,182 70

Amount expended by the Inspector of Buildings.

	DR.	CR.
Inspector of Buildings, for salaries and incidental expenses...	$ 4,000 04	$ 3,300 00
Repairs of Public Schools.....	19,441 45	19,840 89
" " City Property.....	7,247 33	7,396 60
" " Engine Houses.....	11,761 15	14,562 45
" " Washington Monument.....	199 09	200 41
Balance due on Southern Police Station House.....	379 00	379 00
Building Colored School, No. 7...	4,762 44	20,000 00
" Primary " " 6...	5,870 80	17,000 00
Enlarging " " " 15...	4,960 00	5,000 00
Building " " " 16...	12,218 25	12,219 25
" Grammar " " 5...	28,267 66	28,339 03
Enlarging " " " 10...	5,900 00	6,000 00
Building " " " 12...	12,350 86	23,000 00
" " " " 21...	5,740 25	5,997 81
" " " " 22...	9,106 94	10,153 29
	$132,205 26	$173,388 73

TABLE H—Continued.

Expenditures and Appropriations for Sundry Accounts.

	DR.	CR.
City Council, for salary of officers and members and incidental expenses	$ 53,840 38	$ 55,105 50
General expense	3,521 13	3,500 00
State and City Elections	15,277 86	7,802 00
Supervisors of Election	4,306 76	5,000 00
Salary of sundry officers	72,405 66	63,400 00
Court House, expenses of	5,357 38	5,000 00
Old Masonic Hall, expenses of	2,590 82	3,000 00
Lamp-lighters' salaries	51,288 00	43,128 00
Gas and Gasoline Lamps	221,756 98	198,450 46
City Property, ground rents, &c.	2,418 75	3,404 75
Commissioners for Opening Sts.	309 73	300 00
City Librarian, for stationery, &c.	5,573 37	10,000 00
History of City Hall	1,893 00	3,230 00
Ice Boat	10,000 00	10,000 00
House of Refuge	20,000 00	20,000 00
House of Reformation and Instruction for Colored Children	20,000 00	20,000 00
St. Mary's Industrial School	16,277 45	16,277 45
Commission to define the Port Warden's line	1,000 00	1,000 00
New Assessment	53,273 46	54,926 00
Extension of the City	1,200 00	1,200 00
Picture of New City Hall	651 50	750 00
State tax on Permanent Water Loan	907 36	907 36
Plugs and Pumps	1,000 00	1,000 00
Drinking Fountains	875 00	875 00
Amounts brought forward	$565,724 59	$528,256 52

TABLE H—Concluded.

Expenditures and Appropriations for Sundry Accounts

	DR.	CR.
Amounts brought forward.....	$565,724 59	$528,256 53
Purchase of bed of Diamond Alley	500 00	500 00
Purchase of United States Supreme Court Reports.....	470 00	500 00
Ringing Mechanic's bells.....	200 00	200 00
Superintendent of City Hall.....	16,910 24	16,775 08
Expenses of the Mayoralty.....	1,195 01	2,000 00
Repairs to Sheriff's office.....	499 75	500 00
	$585,499 59	$548,731 60

TABLE I.

Opening Townsend Street.

	DR.	CR.
To Balance, November 1st, 1876...	$21,970 47	
To amount paid for damages.....	2 00	
By Balance, December 31st, 1877.		$21,972 47
	$21,972 47	$21,972 47

TABLE I —Continued.

Opening Lexington Street, No. 1.

	DR.	CR.
To Balance, November 1st, 1876..	$8,314 76	
To amount paid for damages.....	201 77	
By Balance, December 31st, 1877.		$8,516 53
	$8,516 53	$8,516 53

Opening Oliver Street.

	DR.	CR.
By Balance, November 1st, 1876..		$10,102 87
By appropriation, Resolution 371, 1877.....		2,347 63
By amount received for benefits...		26,960 24
By amount received for material sold.....		1,645 00
To amount paid for damages.....	$42,412 88	
By Balance, December 31st, 1877.		1,357 14
	$42,412 88	$42,412 88

Widening Franklin Street.

	DR.	CR.
To Balance, November 1st, 1876..	$959 01	
By amount received for material sold		$310 00
By Balance, December 31st, 1877.		649 01
	$959 01	$959 01

TABLE I—Continued.

Opening Gist Street.

	DR.	CR.
By Balance, November 1, 1876....		$1,934 03
To amount paid for damages.....	$ 424 14	
" Balance, December 31, 1877....	1,509 89	
	$1,934 03	$1,934 03

Opening Lexington Street, No. 2.

	DR.	CR.
To Balance, November 1, 1876....	$3,217 58	
" amount paid for damages.....	189 08	
By Balance, December 31, 1877...		$3,406 66
	$3,406 66	$3,406 66

Opening Forrest Street.

	DR.	CR.
By Balance, November 1, 1876....		$18,304 78
To amount refunded for benefits previously paid.....	$ 323 23	
" amount paid for advertising and surveys.....	240 73	
" Balance, December 31, 1877...	17,740 82	
	$18,304 78	$18,304 78

TABLE I—Continued.

Opening North Avenue.

	DR.	CR.
By Balance, November 1, 1876....		$6,052 68
" amount received for material sold.....		4,700 00
To amount paid for damages.....	$21,519 49	
By Balance, December 31, 1877...		10,766 81
	$21,519 49	$21,519 49

Opening Franklin Street.

	DR.	CR.
By Balance, November 1, 1876....		$5,411 33
To amount refunded for benefits previously paid.....	$1,263 17	
To Balance, December 31, 1877...	4,148 16	
	$5,411 33	$5,411 33

Closing Liberty Road.

	DR.	CR.
To Balance, November 1, 1876....	$7,870 98	
To amount paid for damages.....	157 50	
By Balance, December 31, 1877...		$8,028 48
	$8,028 48	$8,028 48

TABLE I—Concluded.

Opening Calvert Street.

	DR.	CR.
To Balance, November 1st, 1876...	$543 83	
To amount paid for damages.....	333 33	
By amount received for benefits...		$1,459 17
To Balance, December 31st, 1877..	582 01	
	$1,459 17	$1,459 17

Opening North Street.

	DR.	CR.
To Balance, November 1st, 1876...	$1,090 62	
By amount received for benefits...		$286 49
By Balance, December 31st, 1877..		804 13
	$1,090 62	$1,090 62

Opening Lelong Street.

	DR.	CR.
By Balance, Nov. 1, 1876.....		$30 52
By amount received for benefits...		49 36
To Balance, Dec. 31, 1877.....	$79 88	
	$79 88	$79 88

TABLE I.—Continued.

Opening Hanover Street.

	DR.	CR.
By Balance, Nov. 1, 1876.....		$9 95
To amount paid for advertising....	10 90	
By Balance, Dec. 31, 1877.....		95
	$10 90	$10 90

Opening Lanvale Street, No. 3.

	DR.	CR.
By Balance, Nov. 1, 1876.....		$3,383 96
By amount received for benefits...		1,318 29
To amount paid for damages.....	$5,225 00	
By Balance, Dec. 31, 1877.....		522 75
	$5,225 00	$5,225 00

Opening Ostend Street.

	DR.	CR.
By Balance, November 1, 1876....		$122 50
By amount received for benefits...		13 50
To Balance, Dec. 31, 1877..... ..	$136 00	
	$136 00	$136 00

TABLE I—Continued.

Opening Marshall Street.

	DR.	CR.
By Balance, November 1, 1876....		$1,542 26
" amount received for benefits...		6,434 65
" " " " material sold.....		215 00
To amount paid for benefits.....	$6,806 77	
" " " Auctioneer's commissions, advertising and surveys.....	2,018 17	
By Balance, December 31, 1877...		633 03
	$8,824 94	$8,824 94

Opening Bloom Street.

	DR.	CR.
By Balance, November 1, 1876....		$41,936 77
" amount received for benefits...		22,289 48
" " " " material sold.....		200 00
To amount paid for damages.....	$64,283 25	
" Balance, December 31, 1877...	143 00	
	$64,426 25	$64,426 25

TABLE I—Continued.

Closing Kirby's Lane.

	DR.	CR.
To Balance, November 1, 1876....	$ 258 85	
" amount paid for damages.....	3,231 54	
By " received for benefits...		$2,652 87
" Balance, December 31, 1877...		837 52
	$3,490 39	$3,490 39

Opening Sharp Street.

	DR.	CR.
To Balance, November 1, 1876....	$230 90	
" amount paid for examining title and advertising	365 65	
By Balance, December 31, 1877...		$596 55
	$596 55	$596 55

Opening Eager Street.

	DR.	CR.
To Balance, November 1, 1876....	$ 600 56	
" amount paid for damages.....	21,985 53	
By " received for benefits...		$6,838 10
" " " " material sold.....		75 00
" appropriation, Ord. No. 58.....		15,125 74
" Balance, December 31, 1877...		547 25
	$22,586 09	$22,586 09

TABLE I—Continued.

Opening Broadway.

	DR.	CR.
To Balance, November 1, 1876....	$ 377 32	
" amount paid for advertising, Auctioneer's commissions and surveys.....	1,366 55	
By amount received for benefits...		$ 35 06
" Balance, December 31, 1877....		1,708 81
	$1,743 87	$1,743 87

Opening Calhoun Street.

	DR.	CR.
To Balance, November 1, 1876....	$352 67	
" amount paid for advertising...	60 95	
By Balance, December 31, 1877..		$413 62
	$413 62	$413 62

Opening Grove Alley.

	DR.	CR.
To Balance, November 1, 1876....	$298 14	
" amount paid for damages.....	42 20	
" " " Auctioneer's commissions.....	20 00	
By amount received for material sold.....		$100 00
" Balance, December 31, 1877....		260 34
	$360 34	$360 34

TABLE I—Continued.

Opening Wilkins Avenue.

	DR.	CR.
To Balance, November 1, 1876....	$ 1,039 24	
" amount paid for damages.....	44,853 12	
" " " Auctioneer's commissions.....	227 00	
By appropriation, Ordinance No. 58.....		$29,886 07
" amount received for benefits...		14,806 30
" Balance, December 31, 1877...		1,426 99
	$46,119 36	$46,119 36

Widening Fayette Street.

	DR.	CR.
To Balance, November 1, 1876....	$1,428 20	
By appropriation, Ordinance No. 58.....		$49,076 86
" amount received for benefits...		7,782 92
To Balance, December 31, 1877...	55,431 58	
	$56,859 78	$56,859 78

TABLE I—Continued.

Widening Orleans Street.

	DR.	CR.
To Balance, Nov. 1, 1876.....	$3,255 44	
" amount paid for advertising....	15 30	
By amount received for benefits...		$12,600 44
To Balance, Dec. 31, 1877.....	9,329 70	
	$12,600 44	$12,600 44

Opening Washington Street, No. 3.

	DR.	CR.
By Balance, Nov. 1, 1877.....		$6,823 72
To amount paid for surveys	$ 231 72	
" Balance, Dec, 31, 1877.....	6,592 00	
	$6,823 72	$6,823 72

Opening Washington Street, No. 2.

	DR.	CR.
By Balance, Nov. 1, 1876.....		$ 466 22
" amount received for benefits....		10,585 98
" " " " material sold		45 00
To amount paid for damages.....	$19,423 66	
By Balance, December 31, 1877...		8,326 46
	$19,423 66	$19,423 66

TABLE I—Continued.

Ogening Chew Street.

	DR.	CR.
By appropriation, Ordinance No. 58		$ 20 80
By amount received for benefits		300 79
To amount paid for surveys and advertising	$283 50	
To Balance, December 31, 1877	38 00	
	$321 59	$321 59

Widening Gay Street.

	DR.	CR.
By appropriation, Resolution No. 368		$60 00
To amount paid for surveys	$60 00	
	$60 00	$60 00

Opening Marshall Street, No. 2.

	DR.	CR.
By appropriation, Ordinance No. 58		$28,862 53
By amount received for benefits		21,091 89
" " material sold		8,950 00
To amount paid for damages	$56,001 27	
To Balance, December 31, 1877	2,903 15	
	$58,904 42	$58,904 42

TABLE I—Continued.

Opening Beason Street.

	DR.	CR.
To amount paid for advertising and surveys.....	$158 24	
By amount received for benefits...		$ 11 12
By Balance, December 31st, 1877.		147 12
	$158 24	$158 24

Opening a 15 foot Alley from Wilson Steeet to Presstman Street.

	DR.	CR.
To amount paid for advertising and surveys.....	$247 62	
By amount received for benefits...		$139 32
By Balance, December 31st, 1877.		108 30
	$247 62	$247 62

Opening Valley Street.

	DR.	CR.
To amount paid for advertising and surveys.....	$416 44	
By amount received for benefits...		$668 08
To Balance, December 31st, 1877.	251 64	
	$668 08	$668 08

TABLE I—Continued.

Opening Hull Street.

	DR.	CR.
To amount paid for advertising and surveys	$306 57	
By amount received for benefits...		$154 24
By Balance, December 31st, 1877.		152 33
	$306 57	$306 57

Opening McKim Street.

	DR.	CR.
To amount paid for auctioneers' commissions, advertising and surveys	$538 87	
By amount received for benefits...		$430 00
By Balance, December 31, 1877...		108 87
	$538 87	$538 87

Opening Decatur Street.

	DR.	CR.
To amount paid for advertising and surveys	$344 85	
By amount received for benefits...		$893 50
To Balance, December 31, 1877...	548 65	
	$893 50	$893 50

TABLE I—Continued.

Opening Pitcher Street.

	DR.	CR.
To amount paid for advertising and surveys	$ 312 46	
" amount paid for damages	25,300 00	
By amount received for benefits...		$ 7,988 32
" Balance, December 31st, 1877..		17,624 14
	$25,612 46	$25,612 46

Opening McHenry Street.

	DR.	CR.
To amount paid for advertising and surveys	$492 21	
By amount received for benefits...		$ 12 45
" Balance, December 31st, 1877..		479 76
	$492 21	$492 21

Opening Ensor Street.

	DR.	CR.
To amount paid for advertising and surveys	$264 83	
By amount received for benefits...		$ 72 50
" Balance, December 31st, 1877..		192 33
	$264 83	$264 83

TABLE I—Continued.

Opening a triangle lot, at the intersection of Oliver and McMechen Streets and North Avenue.

	DR.	CR.
To amount paid for advertising and surveys	$ 102 78	
" amount paid for damages	3,000 00	
By appropriation, Ordinance No. 58		$3,140 78
To Balance, December 31st, 1877.	38 00	
	$3,140 78	$3,140 78

Opening Eden Street.

	DR.	CR.
To amount paid for advertising, surveys and Auctioneers' Commissions	$1,083 25	
By amount received for benefits...		$ 13 60
" Balance, December 31st, 1877..		1,069 65
	$1,083 25	$1,083 25

TABLE I—Continued.

Amount paid for advertising, surveys and Auctioneer's commissions for sundry streets.

	DR.	CR.
Biddle Street opening.....	$9 50	
Federal Hill Square opening.....	305 32	
Tunnel Alley opening.....	48 05	
Fulton Street "	26 70	
Humes " closing.....	157 28	
Eutaw Place opening.....	716 44	
Porter Street "	345 82	
Luzerne " "	879 35	
Marshall " No. 3, opening.....	66 13	
Jones " opening.....	274 08	
Elm " "	233 90	
St. Paul " "	509 53	
Wilcox " "	143 30	
By Balance, December 31st, 1877..		$3,715 40
	$3,715 40	$3,715 40

TABLE I—Continued.

Amount paid for Paving Streets, and also the amount received from the City Collector, payment by sundry parties.

	DR.	CR.
Oliver street		$3,680 06
Stricker street		458 02
Sterritt street	764 37	198 73
Durst alley	872 72	296 89
Division street		3,789 12
Washington avenue	8,269 77	604 95
Chestnut street		21 81
John street		732 98
Wilson street		1,910 48
Preston street		6,688 05
Mangold street		162 43
Ann street		12 07
Truxton street		230 79
Calverton Road		86 55
Warner street		1,273 22
Baker street	5,437 03	2,188 10
Hampstead street		784 81
Randall street	10,407 20	1,504 03
Edmondson avenue		637 16
Lanvale street	9,007 19	887 69
Lemon alley	756 98	386 86
Eutaw square	12,283 48	2,670 71
Hoffman street	2,460 59	8,268 34
Foster alley	487 01	2,060 69
Chester street	4,840 88	6,351 04
Amounts carried forward...	$55,587 22	$45,885 58

TABLE I—Continued.

Amount paid for paving Streets, and also the amount received from the City Collector, payment by sundry parties.

	DR.	CR.
Amount brought forward.....	$55,587 22	$45,885 58
Vincent alley.....	806 36	3 72
Leloup street.....	1,385 65	274 63
Hall alley.....	923 93	165 73
Raborg street.....	1,241 74	455 85
Sarah Ann street.....	700 21	384 62
Mount street.....	847 47	383 86
Dock street.....	15 05	616 14
Federal street.....	14 45	1,526 45
Johnson street.....	1,477 33	1,538 02
Fulton street.....	3,052 66	2,738 19
Frederick avenue.....	10,478 89	4,098 10
Washington street.....	6,290 84	1,609 95
Second street.....	4,809 55	1,098 96
Winchester street.....	7,534 09	7,269 49
Aliceanna street.....	3,420 16	605 24
West street.....	1,465 46	671 26
Druid Hill avenue.....	27,358 46	3,007 87
South street.....	7,843 32	326 52
Albemarle street.....	272 62	142 22
Biddle street.....	8,230 27	3,014 12
Gist street.....	9,765 47	7,534 06
Laurens street.....	2,978 30	2,295 07
Post Office avenue.....	1,944 97	235 47
Harlem avenue.....	3,068 61	672 79
Eden street.....	4,414 32	920 28
Amounts carried forward.....	$165,927 40	$87,474 19

TABLE I—Continued.

Amount paid for Paving Streets, and also the amount received from the City Collector, payment by sundry parties.

	DR.	CR.
Amounts brought forward.....	$165,927 40	$87,474 19
Lancaster street.....	2,382 00	788 80
Calhoun street.....	1,925 96	769 54
Chester street, No. 2.....		2,851 67
Washington avenue, No. 2.....		1,031 17
Fourth street.....		1,025 91
Baker street, No. 2.....		853 58
Hoffman street, No. 3.....	9,257 34	162 34
Haubert street.....		1,217 58
Bayard street.....		3,364 27
Wilkens avenue.....		27 50
Fayette street.....		425 59
Aisquith street.....		927 86
Presstman street No. 2.....		2,269 54
Read street.....		1,263 52
Spring street.....		430 05
Dallas street.....		67 39
Franklin street.....	75 20	57 57
Ostend street.....		172 36
A 20 feet alley between Harlem avenue and Lanvale street....	806 44	135 37
McElderry street.....		752 17
Clement street.....		5,679 87
Charles street.....		8,692 53
Chew street.....		1,447 83
McHenry street.....		87
Amounts carried forward.	$180,374 34	$121,889 07

TABLE I—Concluded.

Amount paid for Paving Streets, and also the amount received from the City Collector, payment by sundry parties.

	DR.	CR.
Amounts brought forward.....	$180,374 34	121,889 07
Orleans street.....		3,163 16
Castle alley.....		859 18
Cross street.....		489 96
Hanover street.....	33,983 04	685 97
Hammond alley.....		372 83
Baltimore street.....		77 87
Boston street.....		66 63
Presstman street.....	5,869 08	
Liberty street.....	22,418 84	
Broadway.....	14 40	
Paca and Green street.....	2,112 45	
Park street.....	730 83	
North street.....	2,009 53	
North avenue.....	5,031 40	
Calvert street.....	7,454 08	
Received interest on paving account.....		3,002 58
	$259,997 99	$130,607 25

ANNUAL REPORT

OF THE

CITY COLLECTOR,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

REPORT.

TAX DEPARTMENT—OFFICE OF THE CITY COLLECTOR,
CITY HALL, Baltimore, Jan. 2, 1878.

To the Honorable the Mayor and
City Council of Baltimore.

GENTLEMEN:

I have the honor to submit to you, in accordance with the provisions of City Ordinance No. 57, approved June 29, 1877, the report of this department for the fourteen months intervening between October 31, 1876, the end of the last fiscal year, and December 31, 1877, at which date the fiscal year now terminates, under the ordinance above referred to.

The receipts from all sources, as stated in detail upon the various tables and schedules accompanying this report, have amounted to five million, three hundred and thirty three thousand, six hundred and thirty six dollars and thirty three cents, ($5,333,636.33.)

On the levy of 1873, with a taxable basis of $215,829,837, there has been collected 99.78 per centum, the collection of the remainder being now barred by the statute of limitations.

On the levy of 1874, (basis $222,665,765,) there has been collected 98.86 per centum.

On the levy of 1875 (basis $226,411,847) there has been collected 92.69 per centum.

On the levy of 1876 (basis $226,547,201) there has been collected 86.54 per centum.

On the levy of 1877 (basis $256,105,341) there has been collected 63.23 per centum.

In the accompanying tables, the collections from November 1, 1876, to December 31, 1877, are stated as follows:

Table A shows the amount of State and City taxes collected in each month during that period, amounting in the aggregate to five million, fifty six thousand, three hundred and eighty dollars and eighty-six cents, ($5,056,380.86). Of this sum four million, six hundred and forty nine thousand one hundred and ninety three dollars and twelve cents, ($4,649,193.12) were for city taxes, and four hundred and seven thousand, one hundred and eighty-seven dollars and seventy four cents ($407,187.74) were for State taxes.

Table B shows the basis upon which collections of city taxes have been made during the past fourteen months, the rate of taxation, and the amount collected in each levy; also the amounts received for opening, closing and widening streets and alleys, and for advertising. These several items may be briefly summarized as follows:

Receipts from taxes in arrear.....	$1,815,117 32
Receipts on account of levy of 1877.....	2,834,075 80
Receipts for opening and closing streets, &c...	147,516 42
Receipts for paving streets.....	128,979 49
Receipts for advertising.....	759 56
	$4,926,448 59

Table C shows the rate of tax per $100, and the separate items of the levies for each year from 1871 to 1877 inclusive.

Table D exhibits the receipts of taxes on the several levies from 1871 to 1877 inclusive; for opening and closing streets,

alleys, &c.; for paving streets, alleys &c., and for advertising, for each month from November 1, 1876 to December 31, 1877.

Table E shows the receipts of taxes during the period named, divided according to the separate items of the several levies upon which they were received, the receipts from interest on taxes in arrear, and the amount of discount allowed on bills entitled thereto.

Table F shows the percentage of the levies of 1871, 1872, 1873, 1874, 1875 and 1876 collected within those years respectively up to October 31, of each year, and the percentage collected on the levies of 1876 and 1877 up to December 31,1877.

Table G shows the percentage collected each month from November, 1876, to July, 1877, inclusive on the levy of 1876; and from August to December, 1877, inclusive, on the levy of that year.

Table H gives a statement in detail of the amounts received for opening and closing streets, alleys, &c., during the fourteen months included in this report.

Table I gives a similar statement of the amounts received for paving streets and alleys, &c., and the amount of interest received on this account.

In the report which I had the honor to make one year ago, I asked the attention of your Honorable Body to the urgent need of a thorough examination, and correction, of the numbering of the houses in the various streets of the city, and also of having accurate plats made of the entire city for the use of this department. My longer connection with this department has only served to impress me more strongly with the importance of both these recommendations, and I beg again respectively to invite your attention to them.

The suggestion which I made last year in relation to increasing the discount allowed for the prompt payment of taxes upon

personal property, was partially adopted. The advantage of the larger discount appears from the very considerable proportion of the levy of 1877, which has already been collected, notwithstanding that, on account of the delay occasioned by the new assessment, the collection was not begun until August, instead of in April, as is usual. During the first three weeks after the books were ready for the payment of taxes for 1877, while the largest discount was obtainable, City taxes were paid on the levy for that year to the amount of two million, one hundred and eighty four thousand, seven hundred and thirty-five dollars and eighty one cents ($2,184,735.81) a sum enormously in excess of any that has ever been collected during a similar period since the city was incorporated.

In recommending the allowance of a larger discount last year, I pointed out the advantage to be derived to the city, in that it would secure the payment of a considerable amount of taxes upon personal property, which, if not voluntarily paid, would be exceedingly difficult, if not impossible, to collect. I think a further advantage in the discount system lies in the fact that it causes the cost of collection to be borne by those who render the collection of taxes expensive. It seems but just and equitable that those persons who come to the tax office, and tender the money for their taxes immediately after the levy is made, should be exempt, by means of a discount, from all that portion of the levy which was intended to cover the cost of collection. Without the inducement which the discount offers for the prompt and voluntary payment of taxes, I am persuaded that the cost to the City of collecting them, would be greatly increased. For these reasons, I would respectfully suggest that a discount be allowed as follows, upon bills for taxes upon personal property: twelve (12) per cent. if paid during the month in which the levy is made; eight (8)

per cent. if paid during the following month; and four (4) per cent. if paid the third month. After the expiration of that month, all discount to cease.

In view of the session of the General Assembly of Maryland which begins at this time, I beg to renew the suggestion which I made last year, touching the payment of taxes by bodies corporate. That suggestion was as follows: "that the General Assembly of Maryland be asked to pass a law requiring all bodies corporate located in the City of Baltimore, and having a capital stock, to pay the taxes upon such portion of their respective capitals as may be liable to city taxation, direct to the City Collector, in the same manner as they are now required to pay the State taxes to the State Treasurer. Under the present system, such corporations are required to furnish to the Appeal Tax Court lists of their stockholders resident in the City, and then it is optional with them either to pay the tax upon the stock in the manner indicated, or to leave it to be assessed to the several owners. The result is, that stock is often assessed to persons whose names do not appear in the tax books except in connection with such stock, and some of whom are minors. The corporations are not required by law to indicate the exact residence of their stockholders, and doubtless are frequently unable to do so, even if they were disposed voluntarily to do it. As a necessary consequence, a considerable portion of such stock entirely escapes taxation, from the absolute impossibility of ascertaining the residence of the owners.

Respectfully commending this subject to the favorable consideration of your honorable body,

I have the honor to be,

Your obedient servant,

GEO. P. THOMAS, *Collector.*

TABLE A.

Total City and State Taxes received from November 1st, 1876, to December 31st, 1877, inclusive.

1876 & 1877.	City.	State.	Total.
November	$216,021 05	$18,474 66	$234,495 71
December	332,461 28	31,267 34	363,728 62
January	554,988 04	51,054 04	606,042 08
February	148,256 28	14,483 00	162,739 28
March	73,639 72	6,510 69	80,150 41
April	54,519 98	5,341 47	59,861 45
May	74,154 53	7,088 45	81,242 98
June	66,484 07	5,081 78	71,565 85
July	51,890 47	5,054 23	56,944 70
August	2,228,676 75	182,241 58	2,410,918 33
September	182,651 30	16,919 28	199,570 58
October	150,011 24	13,606 65	163,617 89
November	162,395 01	15,493 03	177,888 04
December	353,043 40	34,571 54	387,614 94
	$4.649.193 12	$407,187 74	$5,056,380 86

TABLE B.

Recapitulation of Taxes collected from November 1st, 1876, to December 31st, 1877, on Levies of 1871, 1872, 1873, 1874, 1875, 1876 and 1877.

	Basis.	Rate per $100	Tax.	Discount.	Net Tax.	Interest.	Total, including Int. and Discount
1871.							
Direct.....	1,400	150	$21 00	.....	$21 00	$6 40	$27 40
1872.							
Direct...	75,515	163	1,230 88	.....	1,230 88	310 58	1,541 46
1873.							
Direct...	2,755,517	163	44,914 90	.....	.....	.....	....
Real Exempt	86,512	136	1,176 56	.....	.....	.....	....
Per. Exempt.	16,501	86	141 90	.....	46,233 36	8,317 74	54,551 10
1874.							
Direct.	11,435,765	180	205,843 68	.....	.....	.....	.....
Real Exempt	281,325	161	4,529 32	.....	.....	....	.....
Per. Exempt.	14,275	101	158 45	.....	210,531 45	29,734 59	240,266 04

1875.							
Direct.....	11,620,602	180	209,170 78	.....	209,170 78	16,235 03	225,405 81
1876.							
Direct.....	71,425,391	180	1,285,656 97	2,578 07	1,283,078 90	7,668 54	1,293,325 51
	97,712,803	18					1,815,117 32
1877.							
Real.....	108,615,530	175	1,900,771 78	117,687 96	1,783,083 82	.....	1,900,771 78
Personal.....	53,331,658	175	933,304 02	75,156 12	858,147 90	.....	933,304 02
	161,947,188			195,422 15	4,391,498 09	62,272 88	$4,649,193 12
	259,659,991						

Opening, closing and widening streets and alleys.....	$276,495 91	147,516 42
Paving streets and alleys.....		128,979 49
Advertising.....		759 56
		$4,926,448 59

TABLE C.

Rate of Tax per Hundred Dollars.

	1871	1872	1873	1874	1875	1876	1877
Internal Improvements..	5	10	4	10	6	7	7
Police Department.....	28½	21	22	23	21	21	22
Certain Expenses.....	9	8	6	8	8	6	11
Criminal Court.....	4	3	3	3	3	3	.....
Public Schools.....	13	18	17	21	21	19	19
City Poor.....	6½	5	5	6	5	5	6
City Direct.....	50	78	77	69	75	86	71
Miscellaneous Stock.....	25	18	20	29	27	27	30
Opening Streets.....	7	.....	6	3	9	3	6
City Hall Sinking Fund.	2	2	3	3	2	2	2
Funded Debt of 1868....	.....	.....	.....	1	1	1	1
Jones' Falls Sinking fund	.....	.....	.....	2	1	.....	.....
Funded Debt of 1874....	.....	.....	.....	2	1	.....	.....
	150	163	163	180	180	180	175
Highways and Bridges...	25	50	50	50	.....	.....	.....

TABLE D.

Monthly Receipt of Taxes on the several Levies from 1871 *to* 1877, *inclusive, for Opening and Closing Streets, Alleys, &c., etc., for Paving Streets, Alleys, etc., and for Advertising from November* 1, 1876, *to December* 31*st*, 1877, *inclusive.*

Months.	1871.	1872.	1873.	1874.	1875.	1876.	1877.	Opening Sts. & Alleys.	Paving Sts. & Alleys.	Advertising.	Total.
November			$12,011 51	$ 9,648 34	$22,488 07	$171,873 13		$ 889 11	$ 4,111 02	$ 48 00	$ 221,009 18
December		$173 56	15,515 45	16,557 17	24,818 15	275,396 95		2,104 76	17,361 65	70 00	351,997 69
January		684 12	13,206 49	17,338 72	28,353 26	495,405 45		5,206 92	17,814 10	35 00	578,044 06
February	$27 40	101 47	5,065 88	14,382 32	20,989 30	107,689 91		18,082 64	16,218 61	31 96	182,589 49
March			3,891 37	15,825 44	12,799 62	41,123 29		7,549 56	6,807 81	93 00	88,090 09
April			1,511 99	20,445 57	10,126 81	22,435 61		9,907 69	4,310 43	99 60	68,837 70
May		328 48	1,239 46	32,153 96	12,141 21	28,291 42		5,610 08	2,906 07	155 00	82,825 68
June			603 24	27,612 77	15,871 12	22,396 94		19,756 32	2,000 36	80 00	88,320 75
July			210 90	17,565 95	12,534 08	21,579 54		16,144 70	9,625 99	48 00	77,709 16
August				11,353 08	11,546 90	21,040 96	$2,184,735 81	12,987 85	7,200 32	50 00	2,248,914 92
September			43 74	23,946 49	10,822 04	18,882 49	128,956 54	4,699 71	2,265 17	24 00	189,640 18
October			239 22	16,911 71	13,478 80	22,943 97	96,437 54	14,447 61	18,615 31	14 00	183,088 16
November		136 41	765 77	10,713 66	9,836 71	15,345 28	125,597 18	7,952 64	10,551 14	7 00	180,905 79
December		117 42	246 08	5,810 86	19,599 74	28,920 57	298,348 73	22,176 83	9,191 51	4 00	384,415 74
	$27 40	$1,541 46	$54,551 10	$240.266 04	$225,405 81	$1,293,325 51	$2,834,075 80	$147,516 42	$128,979 49	$759 56	$4,926,448 59

TABLE E.

Division of Taxes Received from November 1st, 1876, to December 31st, 1877.

	1871.	1872.	1873.	1874.	1875.	1876.	1877.	Total.
Internal Improvements	$ 70	$ 75 51	$ 1,143 41	$ 11,731 35	$ 6,972 40	$ 49,897 52	$105,649 27	$ 175 470 16
Police Department	3 99	158 59	6,288 77	26,982 15	24,403 24	149,692 56	332,040 58	539,569 88
Certain Expenses	1 26	60 41	1,715 10	9,385 11	9,296 48	42,769 33	166,020 29	229,247 98
Criminal Court	56	22 65	857 56	3,519 41	3,486 19	21,384 63		29,271 00
Public Schools	1 82	135 93	4,859 49	24,635 85	24,403 24	135,436 12	286,762 32	476,234 77
City Poor	91	37 75	1,429 27	7,038 80	5,810 33	35,641 08	90,556 52	140,514 66
City Direct	7 00	589 01	21,217 47	78,906 80	87,154 55	613,026 62	1,071,585 43	1,872,486 88
Miscellaneous Stock	3 50	135 93	5,717 07	34,020 92	31,375 59	192,461 82	452,782 55	716,497 38
Opening Streets	98		1,715 10	3,519 41	10,458 53	21,384 63	90,556 52	127,635 17
City Hall Sinking Funds	28	15 10	857 56	3,519 41	2,324 14	14,256 42	30,185 48	51,158 39
Funded Debt of 1868				1,173 15	1,162 03	7,128 17	15,092 76	24,556 11
Jones' Falls Sinking Fund				2,346 25	1,162 03			3,508 28
Funded Debt of 1874				2,346 25	1,162 03			3,508 28
Highways and Bridges			432 56	1,406 59				1,839 15
	$21 00	$1,230 88	$46,233 36	$210,531 45	$209,170 78	$1,283,078 90	$2,641,231 72	$4,391,498 09
Interest	6 40	310 58	8,317 74	29,734 59	16,235 03	7,668 54		62,272 88
Discount						2,578 07	192,844 08	195,422 15
	$27 40	$1,541 46	$54,551 10	$240,266 04	$225,405 81	$1,293,325 51	$2,834,075 80	$4,649,193 12
Opening, Closing and Widening Streets and Alleys								147,516 42
Paving Streets and Alleys								128,979 49
Advertising								759 56
								$4,926,448 59

TABLE F.

Of per centage collected within the year, on levies of 1871, 1872, 1873, 1874, 1875 *and* 1876, *to October* 31, *and of* 1877, *from date of levy to December* 31, 1877, *also on Basis of* 1876 *to December* 31, 1877.

	Basis.	Basis collected upon.	Per Cent.
1871	$210,310,975	$122,868,428	58.42
1872	217,162,979	120,155,838	55.33
1873	222,498,305	112,832,132	50.71
1874	228,571,316	124,553,743	54.50
1875	231,365,863	128,310,784	55.46
1876	228,816,110	124,618,703	54.46
1877 to December 31, 1877	256,105,341	161,947,188	63.23
1876 " "	226,547,201	196,044,094	86.54

TABLE G.

Showing the per centage collected monthly from Nov. 1, 1876, *to August* 1, 1877, *on levy of* 1876, *and on levy of* 1877, *from August to December* 31, 1877, *inclusive.*

	Months.	Basis collected upon.	Per Cent.
	1876.		
	November.....	$9,548,508	4.21
	December.....	15,299,831	6.70
	1877.		
1876.	January.....	27,522,525	12.15
$226,547,201.....	February.....	5,593,008	2.63
	March.....	2,262,008	.99
	April.....	1,228,009	.54
	May.....	1,540,928	.68
	June.....	1,213,926	.54
	July.....	1,163,946	.51
	August.....	124,842,045	48.75
1877.	September.....	7,368,946	2.88
$256,105,341.....	October.....	5,510,716	2.15
	November.....	7,176,982	2.80
	December.....	17,048,499	6.65
		$161,947,188	63.23

TABLE H.

Summary of Receipts for opening, closing and widening streets and alleys from November 1, 1876, *to December* 31, 1877.

Opening	Bloom street	$22,289 48
"	Chew "	300 79
"	Marshall "	6,434 65
"	Marshall " No. 2	21,091 89
"	Ostend "	13 50
"	Oliver "	26,960 24
"	Eager "	6,838 10
"	Lanvale " No. 3	1,318 29
"	North "	286 49
"	Calvert "	1,459 17
"	Valley "	668 08
"	Hull "	154 24
"	Beason "	11 12
"	Leloup "	49 36
"	McHenry "	12 45
"	Pitcher "	7,988 32
"	Ensor "	72 50
"	McKim "	430 00
"	Decatur "	893 50
"	Eden "	13 60
"	Wilkens' avenue	14,806 30
"	Washington No. 2	10,585 98
"	Broadway	35 06
	Amount carried forward	$122,713 11

TABLE H—Concluded.

Amount brought forward.....		$122,713 11
Opening Alley between Presstman and Wilson.		139 32
Closing Kirby's Lane.....		2,652 87
Widening Fayette street.....		7,782 92
" Orleans "		12,600 44
Grading Bayard "		1,570 19
Recurbing Franklin "		57 57
		$147,516 42
Streets.....	$147,516 42	
Paving.....	$128,979 49	
	$276,495 91	

TABLE I.

Summary of Receipts for Paving Streets and Alleys, &c., from November 1st, 1876, to December 31st, 1877.

Paving	Leloup	Street.....	$274 63
"	Randall	"	1,504 03
"	Raborg	"	455 85
"	Sarah Anne	"	384 62
"	Chester	"	5,500 29
"	Chester	" No. 2.....	3,702 42
"	Johnson	"	1,538 02
"	Mangold	"	162 43
"	Lanvale	"	887 69
"	Division	"	3,789 12
"	Fulton	"	2,738 19
"	Anne	"	12 07
"	Warner	"	1,273 22
"	Second	"	1,098 96
"	John	"	732 98
"	Hoffman	"	8,268 34
"	Preston	"	6,688 05
"	Winchester	"	7,269 49
"	Alice Anne	"	605 24
"	West	"	671 26
"	Baker	"	2,188 10
"	Baker	" No. 2.....	853 58
"	Sterrett	"	198 73
		Amount carried forward.....	$50,797 31

TABLE I—Continued.

	Amount brought forward.....		$50,797 31
Paving	South	Street.....	326 52
"	Albemarle	"	142 22
"	Biddle	"	3,014 12
"	Mount	"	383 86
"	Gist	"	7,534 06
"	Lawrence	"	2,295 07
"	Truxton	"	230 79
"	Eden	"	920 28
"	Lancaster	"	788 80
"	Calhoun	"	769 54
"	Wilson	"	1,910 48
"	Aisquith	"	927 86
"	Fayette	"	425 59
"	Bayard	"	1,794 08
"	Federal	"	1,526 45
"	Lemmon	"	386 86
"	Fourth	"	1,025 91
"	Hampstead	"	784 81
"	Hoffman	" No. 3.....	162 34
"	Haubert	"	1,217 58
"	McHenry	"	87
"	Presstman	" No. 2.....	2,269 54
"	Read	"	1,263 52
"	Spring	"	430 05
"	Dallas	"	67 39
	Amount carried forward.....		$81,395 90

TABLE I—Continued.

	Amount brought forward.....	$81,395 90
Paving	Ostend Street.....	172 36
"	Dock "	410 52
"	McElderry "	752 17
"	Charles "	8,692 53
"	Stricker "	458 02
"	Orleans "	3,163 16
"	Oliver "	3,680 06
"	Clement "	5,679 87
"	Chew "	1,447 83
"	Washington "	1,609 95
"	" Avenue.....	1,636 12
"	Cross Street.....	489 96
"	Baltimore "	77 87
"	Hanover "	685 97
"	Boston "	66 63
"	Frederick Ave.....	4,098 10
"	Druid Hill "	3,007 87
"	Edmondson "	637 16
"	Post-office "	235 47
"	Harlem "	672 79
"	Wilkens "	27 50
"	Eutaw Square	2,670 71
"	Calverton Road	86 55
"	Hall Alley.....	165 73
"	Durst "	296 89
	Amount carried forward.....	$122,317 69

TABLE I—Concluded.

	Amount brought forward.....	$122,317 69
Paving	Foster Alley.....	2,060 69
"	Vincent "	3 72
"	Chestnut "	21 81
"	Castle "	859 18
"	Dock street "	205 62
"	Hammond "	372 83
"	20 feet "	135 37
Interest on Paving.....		3,002 58
		$128,979 49

ANNUAL REPORT

OF THE

Harbor Board,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

REPORT.

OFFICE OF THE HARBOR BOARD.

BALTIMORE, January 1, 1878.

Hon. George P. Kane, Mayor.

The undersigned, a committee appointed by the Harbor Board, have the honor to report the operations of that department for the past fourteen months, namely, from October 31st, 1876, to December 31st, 1877.

The duties appertaining to the Harbor Commission and the ordinances prescribing the same, having been fully set forth in the last annual report of the Board, need not be specially cited at this time, the full intent and meaning of the said ordinances being to provide for the Port of Baltimore such a harbor as may meet all the requirements of its constantly increasing commerce, thus inviting the vessels of all nations to take advantage of the facilities which the natural situation of our city affords in so ample a degree. When we add that in the past twelve months the Port of Baltimore has been visited by 1,447 vessels, with an aggregate tonnage of 906,126 tons from foreign ports; that 1,340 vessels, with an aggregate tonnage of 894,569 tons sailed hence for foreign ports, and that this fleet represents a foreign commerce alone of $67,057,148, and is exclusive of the immense number of vessels of all sizes engaged in our bay and coastwise traffic; when it is further

stated that these vessels have been afforded free ingress and egress to almost the entire extent of our harbor, very little more need be said of the manner in which this Commission has endeavored to perform its trust.

The general plan of operations and improvements foreshadowed in our last report, embraced, in the first place, dredging to the extent of 1,100,000 cubic yards; and at the conclusion of work this season the actual amount of dredging completed was 1,102,032 cubic yards. This work was let out by contract to the Morris and Cummings Dredging Company, to Messrs. G. C. Fobes and Company, and to Mr. Daniel Constantine, at prices ranging from $9\frac{3}{4}$ to 11 cents per cubic yard, being nearly $\frac{1}{2}$ cent cheaper than the average prices of the previous year.

The operations of the past fourteen months include the dredging of the back basin, and the improvement and deepening of the channel in the middle branch, which items were not embraced in our last annual report, but were carried out in accordance with special enactments of the City Council.

The total amount of dredging performed by the Board since the date of its organization is 2,031,905 cubic yards. The work of the two seasons comprises an area of 9,950,000 square feet, worked over—or would be equivalent to a channel 150 feet wide and $12\frac{1}{2}$ miles long. The material removed would cover as stated in the Engineer's report, a space equal to the block upon which the City Hall is built, and more than six times as high as the dome of that building.

In order that our harbor may be rendered available to its utmost capacity, there yet remains much work to be done, and that which has already been completed must be carefully maintained, as the operation of causes tending to establish a less depth of water in the various parts of the harbor are not

removed, the effects only of such original causes being overcome for the time being by dredging and by the formation and maintenance of such channels as are necessary, both for the protection of our commerce and for the preservation of the public health.

The removal of large shoals in the main harbor, one opposite the mouth of Jones' Falls and the other about the anchorage grounds opposite Canton, the regular annual dredging of the back basin to prevent its becoming a source of serious injury to the public health; the widening of several channels especially referred to in the Engineer's report, are among the requirements which are naturally indicated.

IMPROVEMENT AND REPAIR OF WHARVES.

The following work has been completed during the past season under this head:

The extension of Hanover Street wharf, under contract with Mr. Benj. Glenn. The erection of a wharf 200 feet long and 40 feet wide at foot of Charles street, by the same contractor.

The renewal of platforms and stringers of South street and Bowley's wharves, under contract with Mr. J. B. Ely.

The renewal of about 200 feet of the platform of Long Dock, under contract with Mr. Ed. Flaherty, and the replacement of the old wooden crib at foot of Broadway at County Wharf, by substantial stone walls, under contract with Mr. J. B. Ely.

OBSTRUCTIONS, WRECKS.

During the year two sunken vessels have been removed from the harbor, and as no fund had been provided for this purpose and no responsible owners of the said wrecks could be

found, the expense of the removal was necessarily borne by the Harbor Improvement fund.

Ice.—During the latter part of December, 1876, the harbor became so completely blocked by ice that navigation was practically suspended. In order to assist in relieving the commerce of the port at this time, three of the city tugs were hastily equipped and put in commission, and rendered efficient service. For particulars of their operations you are respectfully referred to the Engineer's report.

The Ice Boat ordered by special ordinance (approved May 5th, 1877) to be constructed under supervision of the Harbor Board, is now fairly under way and will be ready for service next fall.

For some time it was matter of serious debate whether this boat should be constructed of wood or of iron. But as soon as it was ascertained that a first class iron vessel could be constructed by Baltimore builders, and that the same could be fully equipped with first class machinery within the limit of the appropriation by Council, it was determined to build such a boat, firstly, because the best service would be rendered, and for the longest period by an iron vessel; and secondly, because it was believed that the enterprise which prompted Baltimore mechanics to make proposals for the work was deserving of the promptest recognition, as encouraging one of the most important interests which tend to the prosperity of a great city.

Accordingly the contract for the hull of the new boat was let to Mr. Wm. T. Malster for $64,000, and the contract for the machinery to Messrs. Chas. Reeder & Co. for $62,173. For full description and plan you are respectfully referred to copies of specifications hereto appended.

All the movable property transferred to the Harbor Board by the late Port Warden's Department, with the exception of

the city tugs, was duly conveyed to the charge of the Comptroller, in accordance with special ordinance of Council, as recommended in our last report, and by the Comptroller was offered and sold at public auction, the proceeds of sale being covered into the city treasury; thus effecting an important saving, firstly, in dispensing with the services of a number of employees who were required to watch the property, and secondly, in avoiding the utter decay of the said property, which was rapidly becoming worthless.

The complete plan of harbor excavation must be achieved gradually from year to year, and the Board would recommend that during the season of 1878 the following only should be provided for, namely:

Excavation and removal of

300,000	cubic	yards	from	upper Middle Ground opposite Jones' Falls.
200,000	"	"	"	lower Middle Ground opposite Canton.
50,000	"	"	"	Back Basin and Docks.
100,000	"	"	"	Main Branch.
100,000	"	"	"	Middle Branch (Spring Gardens.)
750,000	Cubic yards in all.			

This amount of excavation is more than thirty per cent. less than the past year's work. A part of this work will be more difficult than the previous dredging. The Board estimate the cost of this, including all expenses of office and supervision for the year, at..... .....$105,000 00

Indispensable wharf repairs for 1878, the Board estimate at..... 5,000 00

$110,000 00

and they therefore respectfully suggest that this sum be appropriated.

The unexpended balance of appropriation for the Ice Boat is $119,912.10, which under the rules of the City Council will require to be re-appropriated.

We subjoin tabular statements (marked "A" and "B") in which will be found an exact account of appropriations, disbursements and unexpended balances, details concerning contracts for dredging and for repairs of wharves, description of length, depth and width of channels, and of other work performed under supervision of this department.

Respectfully submitted.

WM. SEEMULLER, *Ch'n.*
JOHN W. McCOY,
WM. H. SKINNER,
Committee.

SPECIFICATIONS

OF ICE BOAT MACHINERY.

The machinery is to consist of two horizontal high pressure condensing engines, arranged on each side of vessel, with direct connections to main cranks and puddle shafts, and to have an intermediate shaft, cranks and coupling, by which the engines may be worked, connected together at right angles, or disconnected and independent of each other as circumstances may require.

Condenser.—The condensing apparatus is to be of the ordinary jet form, so arranged that the engines may be readily and instantly transposed to non-condensing engines; or again, to condensing engines, when so required.

Boilers.—Steam to be furnished by six cylindrical boilers, with internal furnaces, and return tubes, (known as the Scotch boiler,) to be arranged in two sets of three abreast, the fronts facing each other, leaving a space of twelve feet between, for fire room. Each set will have a steam chimney or superheater, and the furnace gases passing through the two superheaters, will be received by one chimney, which will be common to the six boilers. Each set of boilers will be independent, and may be used separately. One set being of sufficient capacity to furnish steam for the engines, when not working in ice.

In addition to the appendages, pumps, pipes, valves, etc., usual and required for engines and boilers of this kind, there is to be a donkey boiler, and a fire pump of sufficient capacity

to be used as a wrecking pump, to have suction hose, and suitable appendages.

Engine Cylinders—To be forty-five (45) inches diameter, and of length suitable for ninety-six (96) inches stroke of piston, having three lugs cast on each side, with ribs bracing said lugs, and connecting with ribs in corresponding position on the cylinders, to have nozzles 6″x24″ at each end, with suitable flanges to receive valve chests.

Thickness of cylinders $1\frac{3}{8}$″ in the body, $1\frac{3}{4}$″ at ends and middle lugs, and $1\frac{7}{8}$″ flanges, bored, faced and finished to receive its attachments, and fit its position on engine sills.

Cylinder Heads—To be recessed, and strongly ribbed; to have self-acting relief valves, stuffing boxes, glands, &c.

Thickness of heads $1\frac{1}{4}$″, ribs $1\frac{1}{4}$″, flanges $1\frac{3}{4}$″, turned and finished.

Valve Chests.—To be arranged on the sides of cylinders, with steam pipes connecting the two chests, lifting rods in front of chests, guided by a plate supported by three columns, on which plate the dash pots of the cut-off rests.

The top of chests, bonnets, binders, lifting rods, columns, &c., to be polished work.

Valves.—Balance puppet valves of brass, and brass seats 10″ diameter, cased with copper, with five brass nuts on each stem.

Cut-off.—Sickell's cut-off, with independent motion, arranged to regulate the cutting off point to any part of the stroke, while the engine is in motion.

Piston Rod.—Double shell close piston metal, $1\frac{1}{4}$″ thick, with narrow fallower rings, piston rod of steel, 5″ diameter, secured to the piston by a nut, (no key through piston.)

Cross Heads.—Wrought iron forked crosshead, bored and fitted to piston rod, with a cross key in socket, the fork being

bored to receive the cross shaft, in which will be the main journal, 7″ diameter, and 8″ long, and two air pump journals 5″ diameter and 3″ long. Jaws of cast iron, of suitable dimensions to receive brass gibs 3½″ wide and 15″ long.

Connecting Rods to be of wrought iron, about sixteen feet (16′) long, with single blocks at each end and with wrought iron straps and keys; also brasses of suitable dimensions, for the crosshead and crankpin journals, to have centre studs and wrought iron braces 1½″ diameter. Diameter of rod 6¾″ in middle, 5½″ in neck at crosshead, and 6″ in neck at crankpin end.

Cranks and Pin.—Wrought iron cranks 48″ from centre to centre, main crank boss, 28″ diameter, 15″ deep, pin-boss 14½″ diameter, 10″ deep, web 19″x8½″ and 12″x7″. Fallower crank, large boss, 25″x14″, small boss, 14½″x8½″, web 17″x7½″, 10″x6″. Crank pins of steel, journal 17½″ diameter by 11″ long, to be of wrought iron, 18″ diameter at bosses, 17″ diameter in body. Main journal, 16½″ diameter and 22″ long. Out board journal 11″ diameter and 15″ long. Intermediate shaft 14″ diameter, with journals 14″ diameter, one 16″ and one 12″ long, with couplings and gearings to enable one attendant to connect or disconnect the shafts.

Pillow Blocks—To be of cast iron with adjustable check brasses at crank journals.

Wheels.—About 24 feet diameter and 12 feet face, having 5 cast iron centres in each wheel, arms in outer centre to be 6x15 inches. Arms in the other centres to be 6″x4″. Ends of all arms to be shod with iron, the width of arms by ½″ thick. Rims at out ends of arms, to be 1x5 inches, double rim on outside section. The small rims above paddles, one on each side of braces, to be 4x½ inches. The paddles to be shod with No. 6 and No. 8 plate iron.

Condensing Apparatus.—A condenser, channel plate and air pump of cast iron, and of suitable size, will be provided and placed in the hold under the engines, and operated by connecting rods to the main cross head, having a pump 32″ diameter and 36″ stroke, lined with brass, a trap piston rod and valve seats.

In addition to the usual compliment of valves, pipes, &c., an additional double valve will be provided for the purpose of directing the exhaust steam to the condenser, or out board, as may be required when using the engines, in the one case, as condensing engines, and in the other, as non-condensing engines.

Boilers.—Six cylindrical boilers, internal furnaces, generally known by the term Scotch boilers, each boiler to be 9 feet diameter, and 11 feet long, having two furnaces 38″ diameter in the clear, and 122–3″ return tubes, 9 feet long; each boiler to be provided with a steam drum, 48″ diameter by 30″ high, if practicable, and each set of three boilers to be provided with a drum and chimney, 7¼ feet outside diameter, and 4¼ feet inside diameter, and about 11 feet high.

Each boiler to have two manhole plates, and a sufficient number of handhole plates to enable the attendant to properly clean the same.

Thickness of iron in the shell to be $\frac{9}{16}$ of the best C. H., No. 1 iron, lateral seams, double riveted. Furnace ½″ thick of the best flange firebox iron, and made on the most approved plan, of sufficient strength to bear a hydrostatic pressure of 150 lbs. on the square inch, at which pressure they are to be tested before being placed on board, and to contain 266 sq. ft. of grate surface, 7,067 sq. ft. of fire surface, 1154 cu. ft. of steam room, and about 2,124 cu. ft. of water capacity.

Pumps.—Boilers to be supplied by two independent steam pumps, of suitable size and so arranged, that in case of neces-

sity they can be used either as fire or bilge pumps. Two copper bilge pumps, worked from main shafts, arranged to attach or detach at pleasure; also one hand pump.

Equipments.—Each boiler to be provided with screw stop valves in steam pipe, and screw stop valves in feed pipe. A safety-vale, blow-valve, glass water gauge and three gauge cocks, in order that each boiler may be independent, to be used or suspended at pleasure; all feed or blow pipes to be of copper.

Copper exhaust pipes from engine to condenser.
Copper escape pipes.
One anvil.
Four ventilator pipes.
One sledge.
Sock safety valves.
One hammer.
Cast iron plates on fire room floor.
Deck gratings.
Three pair tongs.
Iron railing.
One vise.
Fireroom ladders.
Half dozen assorted files.
Two sets of fire tools.
Half dozen chisels.
Two fire room hose and pipes.
Two chipping hammers.
One dozen shovels.
One copper hammer.
Three ash buckets.
One copper maul.
Two fire room steam gauges.
Three tube brushes.

One small forge.
Half dozen S wrenches.
Four drills.
One ratchet brace.
One oil tank.
One tallow tank.
One tallow kettle.
Six oil cans.
Two E. room lamps.
Two fire room lamps.
One large and two small screw wrenches.
Six hand lamps.
Steam and vacuum gauge for engine room.

Special Equipment.—There is to be provided a Cameron pump, equal to a No. 7 Worthington pump, with a suitable Donkey pump and connections, together with 60 ft. of 7″ suction hose and 150 ft. of 2″ fire hose.

Character of Work and Performance.—All work to be of the best material, and very best character of workmanship, unfinished metal to receive two coats of paint, steam-drums and pipes to be covered with felt and canvas, cylinders and side-pipes to be felted and cased with walnut casing. The bright work or finished part of engines to equal the amount usual in first class engines. The engines to be capable without jar, heating or excessive friction, to make 20 revolutions of the wheel per minute, with 60 lbs. pressure by gauge, cutting off at half stroke.

Finally, these specifications are intended and shall be held to cover each and every item and thing of labor, work and material required to construct and complete the whole of above machinery, in the vessel ready for steam; anything herein omitted or misstated to the contrary notwithstanding.

It being understood that the above specifications do not and are not intended to include any kelson, engine-sills, decks, wheelhouses, guards, braces, stanchions and kingposts, which were originally contemplated as a part of the hull, and necessary equipment of the hull of a steam vessel, to receive its machinery, and forms no part of the machinery as contemplated in these specifications.

Coal bunkers and coal bunker equipments are also excluded, forming no part of these specifications. It is also understood that certain portions of the decks, wheelhouses, engine sills and coal bunkers can only be completed after a portion of the machinery is in place, and are to be so provided and completed independent of these specifications.

OFFICE OF THE HARBOR BOARD.

CITY HALL, Baltimore, July 26th, 1877.

Sealed proposals will be received at this Office until 12 noon, of August 9th, 1877, for the construction of the Iron Hull, &c., for an Ice Boat.

Specifications can be had at this Office on Saturday, 28th inst.

Bids will be opened at 12.05 P. M., August 9th, 1877.

The right is reserved to reject any and all bids.

By order of Harbor Board,

N. H. HUTTON, *Engineer.*

SPECIFICATIONS

Of Labor, Work and Material required to be furnished for the Construction of an Iron Hull for an Ice Boat.

Dimensions.—Length between perpendiculars.....200 feet.
Breath of Beam..... 34 feet.
Depth of Hold..... 14 feet.

Keel.—Of best hammered Scrap iron, 2¾x8 inches in *forty foot lengths*, properly scarfed together; scarfs 24 inches long. Holes in garboard strake and keel to be fair with each other. Keel, Stem, and Sternpost to be double riveted. Seams of scarfs to be well caulked before riveting garboard strake.

Stem.—To be in one piece best hammered scarf iron 4x9 inches, rebated for plating, and kneed for 8 feet, to form part of keel. Scarf to be 24 ins. long.

Stern Post.—Forward and after posts to be forged in one piece of best hammered scrap iron. Forward post 3x8 ins. After post 3x10 ins., and connecting piece 3x10 ins., kneed 8 ft. to form part of keel. Scarf 24 ins. long.

Frames.—To be of angle iron, 3″ x4″ x$\frac{1}{2}$″, spaced ins. between centres for 30 feet from stem and stern, and 24 ins. between centres elsewhere. All to rest on keel, and extend up to Deck-stringer. Frames to be double at bulkhead; to have splice bars 3$\frac{1}{2}$ ft. long of 3″x4″x$\frac{1}{2}$″ angle iron in every frame across keel. The holes in frames for plate landings to be punched or drilled after frames are set up.

Floors.—Floor plates to be 18″x$\frac{7}{16}$″, one to each frame, to extend up the bilge to a perpendicular height of 36 ins. above top of keel, and to be not less molded at heads than the molding of frames. Floors fore and aft to be carried up until they are 18 ins broad, to be in not over two pieces, butts planed and secured by double straps, double riveted; butts to be well shifted, and not nearer middle line than 4 feet.

Reverse Frames.—To be secured to each floor and frame, to be of angle iron 2$\frac{1}{2}$″x3″x$\frac{3}{8}$″, carried up to stringer plate in every alternate frame, and to upper turn of bilge in every frame. Short reverse irons, also to be put on the opposite sides for securing keelsons and stringers. Rivets to be 8 diameters between centres: those connecting frames, reverse frames and floor plates to be $\frac{11}{16}$ ins. diameter.

Limber Holes.—To have 3 in. holes on each side centre keelson, through floors, except at bulkheads.

Centre Keelson.—To be formed of vertical plates 24″x$\frac{7}{16}$″, fitted between floors. To be connected to floors by double angle irons 2$\frac{1}{2}$″x3″x$\frac{3}{8}$″, closely fitted over frames and reverse frames. To have on each side a horizontal plate 10″ x$\frac{1}{2}$″, riveted to reverse frames; and 5″x4″x$\frac{1}{2}$″ angle irons on each side, riveted to plates and to keelson.

Boiler Keelsons.—To be of plate iron, to fit shape of boilers, and well kneed to hull.

Belts.—To have amidships five (5) plate iron belts on each side, of 14″x$\frac{7}{16}$″ iron, extending from floors to stringer plate, backed with angle iron, same size as reverse frames.

Stringers.—Stringers at upper and lower turn of bilge and at water line, to be of double angle iron 4″x5″x$\frac{1}{2}$″, riveted back to back and to double reverse frames. All stringers to extend as far forward and aft as possible, to be continued through bulkheads, made water tight, and connected at ends as breast hooks.

Deck Stringers.—To be 36″x$\frac{1}{2}$″ for 100 ft. amidships tapering to 22″ at ends; to be riveted to beams and to an angle iron 4″x4″x$\frac{1}{2}$″ on outside of hull.

Under the engines these stringers will extend 12 ins. beyond inside engine frame.

On outer ends of guard beams there will be horizontal stringers 15″x$\frac{3}{8}$″ riveted to beams, and a vertical stringer secured to beams by angle iron clips 3″x3″x$\frac{3}{8}$″, and to the horizontal stringer on top of beams by 3″x3″x$\frac{3}{8}$″ angle iron, to which will be fastened log gunwale and fenders.

Tie Plates.—To be 12″x$\frac{1}{2}$″ fitted on each side of boiler hatches, and extending fore and aft to meet stringer plates.

Breast Hooks.—To be placed in bow and stern extending back 30 ft. from stem and 15 ft. from stern, to be placed 2 ft. apart and extend 3 ft. above load water line. To be formed of plate iron 12″x$\frac{1}{2}$″ secured to outer plating and reverse bars by 3$\frac{1}{2}$″x3$\frac{1}{2}$″x$\frac{7}{16}$″ angle iron.

Bulkheads.—To have four (4) water tight bulkheads, one near stem, one near stern, one forward and one abaft of the Boilers. To be of $\frac{5}{16}''$ iron, braced with $3''x3''x\frac{3}{8}''$ angle irons in one length, 30″ apart.

To have suitable sluice valves worked from the deck.

Coal Bunkers.—To have two (2) Coal Bunker bulkheads of 250 tons capacity. To be made of $\frac{1}{4}''$ iron braced with angle irons $3''x2\frac{1}{2}''x\ \frac{6}{16}''$, 30 ins. apart and one inch iron rods.

Beams.—To be of T bulb iron $8''x\frac{1}{2}''$ one to each alternate frame, to have a crown of seven (7) inches, and be secured to frames with knee-plates 30″ deep, $\frac{1}{2}$ in. thick; all to be riveted to stringer plates and frames.

Guard beams of same size with knees 30″ deep, secured to hull by $3\frac{1}{2}''x3\frac{1}{2}''x\ \frac{7}{16}''$ angle iron.

Main Guard beams to be of T bulb iron $10''x\frac{9}{16}''$ in inner part of hull and of box form in the outer portion, securely kneed to hull, and of sufficient strength to carry wheel houses and outer bearings of shafts. The whole plan and sections to be to the satisfaction of Engineer of Harbor Board.

Fore and aft connections between Main Guard beams to be of box form.

All framing of guards and of wheel-houses to be of iron, plan and dimensions to be made satisfactory to Engineer of Harbor Board.

Wheel Houses.—To be of iron $\frac{1}{4}''$ thick, braced with $3''\times3''+\frac{3}{8}''$ angle iron 80 ins. apart.

Hatch Coamings.—To be of $\frac{1}{2}''$ plate iron 12″ wide, secured to beams by $3''x3''x\frac{3}{8}''$ angle iron, and extending 4″ above top of Deck beams.

Queen Posts.—To have (6) posts on each side arranged with rods, &c., to support guard beams and guards.

Staunchions.—To be placed under each engine, under each beam, elsewhere under centres of beams. To be riveted with two (2) $\frac{3}{4}$ inch rivets to cross floors and beams. All to be $3\frac{1}{2}''$ diameter.

Shell Plating.—To be flush jointed on vertical section and lap on the longitudinal. Water line strake to be an outer strake.

Garboard strake to be $\frac{1}{1}\frac{0}{6}''$ thick.

Bottom and Bilge strakes $\frac{9}{1}\frac{}{6}''$ thick.

Water line strake $\frac{1}{1}\frac{0}{6}''$ thick.

Sheer strake $\frac{1}{1}\frac{0}{6}''$ thick, and none less than $\frac{3}{1}\frac{}{6}''$ thick.

The strakes above named for 40 feet of after end be $\frac{1}{1}\frac{}{6}$ less thickness.

Plates not to be less than 12 ft. long: to be double plated at Bow, for 30 ft. from stem, and to 2 ft. above deep water line.

The space between frames and outer strakes to be exactly filled by iron liners, having the whole width of frames, and to be in one piece. All plates to fit close for their whole width on the frames or lining pieces; the fitting of the Butt Straps also to be executed in the best manner. All the Butts and outside longitudinal edges to be planed, all vertical Butts to be flush, and close jointed, and caulked water tight, no filling strips between them allowed. Butts of sheer strake for one hundred and twenty feet amidships to be treble riveted, all other butt-straps to be double riveted, butt-straps to be of the same quality of iron, and to have the fibre of the iron

in the same direction as the plates they connect together, butt-straps to have the same height as strakes and to fall between two consecutive frames, and in the middle of the space if possible.

Vertical butts of two adjoining strakes to be at least four (4) feet apart, and to be four (4) feet distant from next stringer butt. All vertical butts falling between two consecutive frames to be separated by two intermediate strakes. Between butts of Garboard Strakes and Keel, scarfs to have at least two (2) feet nine (9) inches distance. Butts on Garboard strake not to be opposite each other. The longitudinal joints to be capped and double riveted from Keel to stringer plate, sheer strake included: —arrangements of the butts to the satisfaction of the Engineer of the Harbor Board.

Riveting to be executed with the utmost care and according to Lloyd's rules. Chain riveting in butts and longitudinal seams.

Whenever two holes to be filled by the same rivet, do not exactly correspond, their diameter after being made true, never to exceed the first diameter, by more than a tenth. Diameter of holes never to be more than one-sixteenth ($\frac{1}{16}$) of an inch over diameter of rivets. Rivet heads to be perfectly sound without crack or flaws. All rivet holes throughout the ship to be regularly and equally spaced, and carefully punched opposite to each other, from the paying surface in the laps and lining pieces or butt straps, so that the taper of the holes shall be in opposite directions.

Rudder.—Stock and frame of best hammered Scrap iron. Stock 6″ diameter, step $3\frac{1}{2}$ ins.

Plates $\frac{3}{8}$″ thick in one piece for each side and filled in with solid fitting pieces.

Rivets, &c.—All holes throughout the ship, in frames, reverse frames, keelson, stringers, iron deck plates, shell plating, &c., to be punched fair and opposite to each other, and from the paying surfaces, so that the taper of the holes shall be in opposite directions. The rivets are to have cone necks so as to fill the countersink made by punching. The diameters of rivets and riveting to be according to Lloyd's rules. The points or outer end of rivets to be convex below the water line, and flush above that, but nowhere to be lower than the surface of the plating, through which they are riveted, all holes that cannot be punched, to be bored.

No butts of any kind are allowed without having scarf pieces of sufficient size to make the butts as strong as possible.

Quality of Material.—The Garboard Strake and curved plates to be of CH. No. 1, Flange Iron, the balance of the best ship-plates, the whole of the iron to be tough and malleable, free from lamination, and injurious surface defects, and to be capable of standing the following tests:

PLATE IRON FIRST CLASS.

CH. No. 1, Flange tensile strength per sq. in.	Lengthways, 20 tons. Crossways, 17 tons.
Best Ship Plates tensile strength per sq. in.	Lengthways, 18 tons. Crossways, 16 tons.

Plates of outside shell, stringers and clamps, to be bent cold, to the following angle:

THICKNESS OF PLATES.

Eleven-sixteenths ($\frac{11}{16}$) to nine-sixteenths ($\frac{9}{16}$) of an inch.
Six-sixteenths ($\frac{6}{16}$) to nine-sixteenths ($\frac{9}{16}$) of an inch.

WITH GRAIN.

Fifteen (15) Degrees.
Eighteen (18) Degrees.

Angle iron to be of good quality, perfectly welded, and free from defects of lamination.

The Hot Forge test to consist in the usual practice of closing and opening the flanges of the angle iron bars.

The Cold Forge test to consist in punching holes one-half ($\frac{1}{2}$) inch more in diameter than the intended rivet.

The angle iron to stand tensile strain of eighteen (18) tons per square inch without breaking. After rupture, the two pieces to be welded together again, and to stand a tensile strain of not less than 90 per cent. of the former one. The angle iron to pass these tests satisfactorily without showing any defects or alterations.

Rivet Irons.—The rivet bars to be of tough malleable iron, of superior quality; rivets to be correct in shape, according to pattern. The rivet bars to be tested to stand a strain of 30 tons per square inch. All tests to be made at the expense of the Builders, in the presence of the Superintending Engineer, and to his satisfaction.

Cementing.—The whole interior of hull, as high up as upper turn of bilge, to be coated with best Portland Cement, one (1) inch thick, and to cover rivet heads.

Decks.—To be of white pine, 4″ x 5½″, in length not less than 40 ft., secured to beams with ½″ screw bolts, plugged; to be dressed both sides, and edged; laid with fair and regular seams; to break joint 8 feet, and at least three (3) strakes to be between butts on same line; all plank to butt over beams; seams to be well caulked and payed.

Hatch Covers.—To be of white oak.

Water Ways or Sills.—To be of yellow pine 6½″ x 15″.

Plank Shear.—To be of yellow pine 4″x 14″ both sills and plank shear, to be securely bolted to stringer plates.

Fenders.—To be of white oak, in long lengths 6½″ x 12″, tapering to 11″ at stem and stern, securely bolted to stringer plates.

Chafing Piece.—To be of plate iron ½″ x 8″.

Rail.—To be of yellow pine 3½″ x 8″; to extend fore and aft, to termination of chocks, fastened with galvanized iron spikes and stag nails, and finished with plain round.

Staunchions.—To be of white oak 4½″ x 6″, spaced 3½ ft. between centres and 5½ inches from outer edge of plank shear, and fastened through edge of plank shear with locust pins.

Chocks.—Around bow and stern, to be of white oak 7½″ x 16″ strongly bolted and fastened.

Side Chocks to be of white oak about three (3) on each side 9½″x15″, morticed and fitted with locust blocks, and fastened with screw bolts and spikes.

Cleets.—To be of white oak or cast iron and well secured.

Windlass and Bitts.—To be of white oak made and finished complete to suit tonnage of vessel; also, all mooring and towing bitts, cleets, fenders to be made and provided as required, and to satisfaction of Superintending Engineer.

Masts.—One (1) mast to be provided and set forward, with purchase gaff to span forward hatch, and all ropes, blocks and tackle complete. Mast to be 70 ft. long and 18 inches in the partners.

Steering Gear, &c.—One (1) wheel of approved make and style, of size to be prescribed by Superintending Engineer, with most approved gear &c., to be furnished and fitted complete.

Joiners' Work, &c.—To have a promenade deck extending over machinery and cabin hatch. On the main deck, store rooms, kitchen and pantries; and on guards, water-closets.

In the after hold to have state-rooms for officers, and a pantry. Forward to have a forecastle fitted up for crew.—

The forward cabin to be entirely separated from sides of hull, leaving passage-way all around.

On the promenade deck will be fitted up a commodious Pilot House, with a room for Captain adjoining.

All necessary sky-lights, ladders, stairways, railings, &c. &c. to be provided and fitted, as required.

The joiners' and plumbers' works will be about same style, and nearly same extent as on Ice Boat "Maryland." The only difference being, that the enclosure on main deck, for promenade deck, will be probably 30 feet longer (fore and aft.)

Painting.—All wood and iron work, inside and outside, to receive three (3) good coats of paint, colored as may be directed.

Finally.—These specifications are intended to cover each and every item of labor, work and material necessary to the complete construction, in the best manner, both as to work and material, of the whole vessel ready for service, with the following exceptions, viz: movable outfit—engines, shafts, wheels, boilers, and the various appurtenances thereto, included in the recent bids for "*Machinery*" for Ice Boat.

And should it be discovered during progress of work, that anything necessary to the entire and perfect completion of the vessel, according to the intent and meaning of these Specifications, has been herein omitted or mis-stated, the contractor shall supply all such work or material without any extra charge whatsoever. Moreover, it is understood, that any changes may be made, at any time, by the Board, in the Plans and Specifications for this vessel, and unless they increase the cost of the whole work, the contractor shall not receive any extra compensation therefor.

By order of the Harbor Board.

N. H. HUTTON, *Engineer.*

July 26th, 1877.

NOTICE TO BIDDERS.

The Ordinance authorizing the construction of the Ice Boat, directs that the work shall be done in Baltimore, and by Baltimore mechanics.

Bids must state time of completion and launching of Hull, under a forfeiture of non-compliance.

Bids must state in letters and figures, the gross amount for which the work intended to be covered by specifications will be done.

Bids must be accompanied with the guaranty of at least two responsible parties, that they will become sureties, should the bids be accepted.

The contractor will be required to give Bond in double the amount of contract.

Bids must be addressed to Hon. F. C. Latrobe, President Harbor Board, and endorsed: "*Proposal for Ice Boat.*"

Bids will be opened at the day and hour named, in presence of such bidders as choose to attend.

TABLE A.

Statement of Receipts and Disbursements for Fourteen Months, viz: from Date of Last Report, October 31st, 1876, to December 31st, 1877.

	HARBOR AND MAIN BRANCH.		REPAIR OF WHARVES.		HANOVER STREET WHARF.		CHARLES STREET WHARF.		BOWLEY'S WHARF SHED.		NEW ICE-BOAT.	
Re-appropriation of unexpended balances of 1876, to cover contracts and expenses belonging thereto for that year		$ 95,418 62				$2,745 94						
Appropriations for work of 1877		119,793 88		$5,000 00		41 56		$4,000 00		$300 00		$140,000 00
Revenues, (hire of machinery, supervision of private dredging, dumping privilege, &c., deducted from bills for dredging)		9,022 09										
Expenditures as follows, viz:												
Salaries	5,600 00											
Wages of tug crew, supervisors, watchmen, &c	20,573 97		608 81		232 89		190 25		20 00		359 00	
Drawing material, printing, &c	342 37		16 57				26 53				125 35	
Tug supplies and incidental expenses	958 52										83 55	
Fuel	754 40											
Dredging, (remainder of contracts for 1876,)	66,737 09											
Dredging, (contracts of 1877,)	115,381 66											
Dumping grounds, (for remainder of dredging contracts for 1876,)	1,298 03											
" " " " " 1877,)	1,243 00											
Repairs to machinery	1,812 45											
Repairs to wharves	632 99		1,841 21									
Insurance	147 50											
Supervision of private dredging	812 50											
Tugs, machinery, &c	208 24											
Harbor obstructions	300 00											
Building new wharves, (remainder of contracts, 1876,)					75 00							
Building new wharves, (contracts, 1877,)					2,317 94		3,398 00		280 00			
Building new Ice-boat, (on account.)											19,520 00	
Harbor Relief	6,746 03											
Amounts of unexpended balances	685 84		2,533 41		161 67		385 22				119,912 10	
Revenues (rec'd for towing, &c.,) turned over to City Register $2,794.55.												
	$224,234 59	$224,234 59	$5,000 00	$5,000 00	$2,787 50	$2,787 50	$4,000 00	$4,000 00	$300 00	$300 00	$140,000 00	$140,000 00

TABLE B.

Statement of Contracts Let and Work Done (Dredging, Ice-boat and Wharf Repairs) Under the Supervision of the Harbor Board, for the years 1876 *and* 1877.

NAMES OF CONTRACTORS.	KIND OF WORK.	DATE OF CONTRACT.	PRICES.	WORK DONE.
Morris & Cummings Co.....	Dredging	June, 1876.	10½ cts.	633,558 Cubic yards.
" " "	"	May, 1877.	11 "	459,050 " "
Daniel Constantine.....	"	July, 1876.	10 "	296,315 " "
" "	"	May, 1877.	9¾ "	243,852 " "
			9⅞ "	
George C. Fobes & Co	"	May, 1877.	10¼ "	399,130 " "
Benjamin Glenn.	Wharf.	July, 1876.	$ 1,820 00	100 ft. by 60 ft.
" "	"	October, 1876.	1,820 00	" " "
" "	"	June, 1877.	2,898 00	200 ft. by 40 ft.
J. B. Ely.....	Repairs of wharves	January, 1877	3,431 31	Complete.
Edward Flaherty.....	" "	September, 1877.	632 99	"
W. T. Malster.....	Ice Boat.	" "	64,000 00	In progress.
Charles Reeder & Co.....	"	" "	62,173 00	"

Results of Dredging for the Two Seasons, 1876 and 1877.

LOCATION OF CHANNELS, &c	AREA. SQUARE FEET.	LENGTH. FEET.	WIDTH. FEET.	DEPTH. FEET.
Basin and Docks.....	1,500,000	.....	.....	19
Back Basin and Falls.....	450,000	.....	.....	12
Union Dock to Henderson's.	1,150,000	4,600	250	22
Union Dock to Wellner's.....	400,000	2,000	200	19
Miller's to Henderson's	215,000	1,000	215	22
Henderson's to Swann's	340,000	1,700	200	24
Swann's to Sugar House	150,000	1,000	150	22
Atlantic Wharves	112,500	750	150	22
Bollman's to Tyson's.	720,000	3,600	200	24
Dunnington to Boyce's.....	1,350,000	4,500	300	19
Boyce's to Locust Point.....	320,000	1,600	200	22
Henderson's to Locust Point.....	420,000	1,400	300	24
Locust Point to Fort McHenry....	1,560,000	5,200	300	24
Main Branch, (Oil Wharves,).....	825,000	5,500	150	24
Middle Branch	450,000	6,000	75	12

Engineer's Report.

REPORT.

HARBOR BOARD OF BALTIMORE,

ENGINEER'S OFFICE, JAN. 2, 1878.

To the President and Members of the Harbor Board:

GENTLEMEN:—I have the honor to submit the following "report of operations," from October 31st, 1876, to December 31st, 1877, covering a period of fourteen (14) months, in order to conform to the change in the municipal fiscal year.

The several matters connected with the duties of the Board, which are reported upon, will be found to embrace:—

Harbor improvement by dredging.

Construction and repair of wharves.

Removal of obstructions to navigation.

Construction of an ice-boat.

Property received from Port Warden's Department.

Regulation of anchorage grounds, &c.

HARBOR IMPROVEMENT BY DREDGING.

At the close of the fiscal year of 1876, the contracts for "dredging" with the Morris & Cummings Company, and with Mr. Daniel Constantine, were not completed. Owing to the severity of the winter, operations were suspended by both parties, on December 15th, (1876), and were not resumed until late in February, (1877).

Completion of Contracts of 1876.

The contract with Mr. Constantine was completed on April 15th, (1877), and that with the Morris & Cummings Company on the 5th of May, following.

Amount removed October, 1876, to May, 1877.

Between the 31st of October, 1876, and the dates of completion of contracts, the amount of material excavated and removed, was—

By the Morris & Cummings Co....	283,330	c. yds.
By Mr. Daniel Constantine.....	148,437	"
Or by both parties.....	431,767	"

and the total amount excavated and removed under these, the first contracts let by the Board, was—

Total work. Contracts for 1876.

By the Morris & Cummings Co.....	633,558	c. yds.
By Mr. Constantine.....	296,315	"
Making a grand total of.....	929,873	"

Results.

The results of this work were substantially, as set forth in the last annual report, except that the "cross cut" channel, from Henderson's wharf to Locust Point, was made 100 feet wide, instead of 50 feet, as was estimated in that report.

Advertisements for New Work.

Immediately upon receipt of notification of appropriation for 1877, (which provided about $120,000 for new work), advertisements were issued for pro-

posals for removing about 1,100,000 cubic yards of material.

The general distribution of this amount was in accordance with the original "project" of the Board; modified, however, by the requirement of the ordinance which directed that $20,000 of the appropriation should be expended in the improvement of the Middle Branch of the Patapsco, and also by the fact that the Back Basin (or City Dock), was found to require immediate attention.

In response to these advertisements, bids were received from all the principal dredging contractors on the Atlantic coast, and on May 12th and 15th, contracts were closed as follows:—

Contracts of 1877.

With the Morris & Cummings Company, (they furnishing a dumping ground) for 450,000 c. yards, at 11 cents per c. yard.

With Messrs. Geo. C. Fobes & Co., (they furnishing a dumping ground) for 450,000 c. yds., at 10¼ cts. per c. yd., and

With Mr. Daniel Constantine, (the Board furnishing a dumping ground) for 160,000 c. yds., at 9⅞ cts. per c. yd., and 90,000 c. yds. at 9¾ cts. per c. yard.

For a proper comparison of these prices with those of the previous year, it is necessary to deduct from the first two named contracts the cost of providing "dumping grounds," which being done, their prices would be 10½ c. and 9¾ cts. per c. yd, respectively.

Distribution of work, (1877).

To the Morris & Cummings Company was assigned the excavation of channels around Fell's

Point, and thence along northern and eastern side of lower harbor to deep water off Fort McHenry; also the widening of "cross cut" channel, between Henderson's wharf, (Fell's Point) and Locust Point; and the completion (to 300 feet width) of the main ship channel, from Locust Point to Fort McHenry.

To Messrs. Fobes & Company was assigned the excavation of channels on both north and south sides of the middle harbor, between Union Dock and Fell's Point, on the one side, and from Dunnington's wharf to Locust Point, on the other, their work embracing both sides of the shoal formed by deposits from Jones' Falls.

To Mr. Constantine was assigned all work proposed in the Middle Branch, (at Spring Gardens), as also all excavations required in the Back Basin, and other docks.

Work done.

Operations were commenced under these contracts by the Morris and Cummings Company, and by Mr. Constantine, in May, and by Messrs. Fobes & Company in July, (1877), and were actively prosecuted to the completion of the several works.

By Morris & Cummings.

The Morris & Cummings Company, with two (2) machines of the "clam shell" type, removed 459,050 cubic yards, and completed their contract on the 3d of October.

By Fobes & Co.

Messrs. Fobes & Co., (with two (2) similar machines), removed 399,130 cubic yards, completing their contract on the 8th of November.

By Mr. Constantine.

Mr. Daniel Constantine, (with three (3) Osgood dredges, hired from the Board), removed 243,852 c. yds. of material, and completed his contract on November 20th, 1877.

Of the amount removed by Mr. Constantine, 159,797 cubic yards was from that part of the middle branch known as Spring Gardens; and 84,055 c. yds. was from the Back Basin, and other docks.

Total work done.

The whole amount excavated and removed under these latter contracts (of 1877) was..... .... 1,102,032 cubic yds.

And under those of 1876.... 929,873 "

Making total for two seasons, 2,031,905 "

Review of results of two season's work.

Owing to the fact that the work done under the first contracts (1876) was not completed during that fiscal year, it will be necessary to a concise and intelligent description of the results, to combine the work of the two seasons—(1876 and 1877).

The Basin, from Bowly's wharf to Union Dock, has been deepened to 19 feet; the Back Basin, (City Dock) has been deepened to 12 feet, and *channels* have been excavated as follows:

From Union Dock to Henderson's wharf, (along north side of harbor), 22 feet deep, 250 feet wide at narrowest point, and 500 feet at ends; the extra width at upper end being only 19 feet deep.

From Dunnington's to Boyce's wharf, (along south side), 19 feet deep, 200 feet wide at narrowest point, and 500 feet at the widest; these cuts were made irregular in width, in order to remove portions of the very bad shoal at upper end of "middle grounds."

From Boyce's wharf, (south side), to Locust Point, 22 feet deep, 200 feet wide.

From Henderson's wharf to Locust Point, 300 feet wide, 24 feet deep—(cross-cut.)

From Henderson's wharf to Swann's wharf,(enveloping Fell's Point), 24 feet deep, 200 feet wide, and thence to the Canton Sugar House wharf, 22 feet deep and 150 feet wide.

From Bollman's wharf, (Canton), to deep water off Fort McHenry, 200 feet wide, 24 feet deep.

From Locust Point (ferry) to Fort McHenry, 300 feet wide, 24 feet deep.

In Main Branch to coal oil wharves, 150 feet wide, 24 feet deet.

In Middle Branch, (at Spring Gardens), from 12 feet water off Glass House to Diggs' and Baker's wharves, with lateral branches, to Gas House wharf. Ranstead & McCullogh's wharves, all channels 12 feet deep and 75 feet wide, except to Gas House, and McCullogh, which are only 50 feet.

The areas covered by this work, may be summarized as below:

Basin and Docks ..	1,500,000	sqr.,	generally to	19	ft.
Back Basin.....	450,000	"	"	12	"
Union Dock to Henderson's.....	4,600	ft. by	250 ft. by	22	"
Union Dock to Wellener's.....	2,000	"	200 "	19	"
Miller's to Henderson's.....	1,000	"	215 "	22	"
Henderson's to Swann's.....	1,700	"	200 "	24	"
Swann's to Sugar House.....	1,000	"	150 "	22	"
Atlantic wharves...	750	"	150 "	22	"
Bollman's to Tyson's.....	3,600	"	200 "	24	"

Dunnington's to Boyce's	4,500 ft.	by	300 av.	by	19 ft.
Boyce's to Locust Point	1,600 "		200 "		22 "
Henderson's to Locust Point	1,400 "		300 "		24 "
Locust Point to Ft. McHenry	5,200 "		300 "		24 "
Main Branch (Oil wharves)	5,500 "		150 "		24 "
Middle Branch	6,000 "		75 "		12 "

or an area of about 9,950,000 square feet, or about 1,105,000 square yards, which divided into whole work done (2,000,000 c. yds.) gives average depth of excavation of 5½ feet (about). This mass would fill the area of block occupied by City Hall, to a height over six (6) times as great as that to top of dome.

Cost of dredging (two seasons).

The whole amount of money (*applicable to Harbor improvement and dredging*), which has been received by the Board since its organization, is:—

From City directly	$219,793 88
" " on account State auction duties	36,299 07
Making a total of	$256,092 95

Of this sum there was expended, for other than dredging purposes, the following amounts:

Pay of employees of Port Warden's department and watchmen at Sea Wall	$6,000 00

Am'ts bro't forw'd.....	$6,000 00	$256,092 95
Relieving ice-blockade...	5,700 00	
Putting boiler in tug "Banks".....	671 42	
Repairs of wharves.....	632 99	
Raising wrecks..... ...	300 00	
Making a total of.....		$13,304 41
And leaving a nett balance of.....		$242,788 54

which sum divided by the number of cubic yards removed, (2,031,095), gives a total cost of $11\frac{9\,5}{1\,0\,0}$ *cents* per cubic yard, which includes and covers *all* office expenses, (pay of engineer, clerk, watchmen, &c.,) and all the expense of maintaining, running and repair of the tug Baltimore, which, though necessarily used for the supervision of other works under the Board, has had its entire expense charged to the dredging account.

FUTURE REQUIREMENTS, (DREDGING).

Work remaining to be done.

The past season's work has completed the larger portion of the *channels* of the original "project," as set forth in the last annual report; there yet remaining to be done, in this direction:

Of "project" (1).—100 feet width to be added to channel on south side Boyce to Locust Point—50,000 c. yds.

" (2).—100 feet width to channel around Fell's Point—40,000 c. yds.

Of "project" (3).—300 feet width, channel between Sugar House, (Canton), and Bollman's wharf—100,000 c. yds.

" (4).—100 feet width to channel, Bollman's to Tyson's—40,000 c. yds.

" (5).—150 feet width to channel to coal oil wharves—150,000 c. yds., (main branch).

Making a total of 380,000 c. yds. of excavation required to complete the projected main channels; of this amount, the 100,000 yds. estimated for a channel (3), between Sugar House and Bollman's, can be left to any convenient season, as the channel is not now needed at all.

Work outside of "original project."

Outside of the channels of the "project," there remains to be excavated before the harbor can be considered as thoroughly improved, to meet the requirements of the day:—

City Dock

The City Dock (Back Basin) which, as being a "settling basin" for Harford run, and in a measure for Jones' Falls, will require the annual excavation of from 30,000 to 50,000 cubic yards.

Upper "Middle Grounds."

The "*upper* middle ground," or shoal, off the mouth of Jones' Falls, of which at least 500,000 c. yds. yet remain to be removed.

Lower "Middle Grounds."

The "*lower* (Canton) middle grounds," of which the more serious part consists of a hard shoal, requiring the excavation of about 250,000 cubic yards to reduce it to 21 feet depth below low water, and 350,000 yards to bring its surface to 24 feet depth.

Spring Gardens.

The Middle Branch of the Patapsco, or more especially that portion from the mouth of Gwynn's Falls northward, known as the "Spring Gardens," was not included in the original project of the Board in 1876.

Necessity for improvement.

Of the necessity for improvement, if it is expected to retain it as a navigable part of the harbor, there can be no question. The sediment brought into it from Gwynn's Falls, Chatsworth run and Howard street sewer, is rapidly raising the bottom above the level of low water, and nothing but regular dredging will serve to keep down the deposit.

$20,000 appropriation last year.

The Mayor and City Council have recognized the claims of this section by the appropriation of the $20,000 before referred to, as having been applied last season to the opening of channels from Gwynn's Falls to Baker's wharf.

It is expected by the persons immediately interested in the improvement of this part of the harbor, that if a depth of 12 feet at "mean low water" can be obtained and maintained, a considerable portion of the coal, wood, and vegetable trade can be drawn to this vicinity, from the now over-crowded wharves about the Basin.

Width of channels already excavated.

The channels excavated during 1877 (75 feet wide), are not of sufficient width to be easily navigated, and should be at least 125 feet wide, nor need they exceed 200 feet.

Annual cost of maintenance.

Owing to the rapid rate of deposit in this section whatever plan of improvement is adopted, will require from $5,000 to $10,000 to be expended annually to maintain the channels.

Plans for the Improvement.

The more radical plan of improvemen there would be to excavate channels 200 feet wide, following around and parallel to the Port Warden lines, leaving in the centre a shoal or "middle ground," to be removed from time to time, as the requirements of commerce might demand.

The other method would be to widen the channels already excavated, and maintain the present system, consisting of a central longitudinal channel, with lateral branches to such points as may be necessary; this plan can be more speedily rendered available, as a 75 ft. channel has already been formed.

The first plan will require the removal of 500,000 c. yards; and the second, (with 125 ft. wide channels), about 150,000 cubic yards.

Summary of total requirements in this direction.

The total requirements in this direction, (exclusive of work for which there is no present necessity), may be stated to be—

For channels of "project".....	280,000	c. yds.
" *Upper* "middle grounds".....	500,000	"
" *Lower* " " (to 21 ft.)	250,000	"
" Back Basin and docks.....	50,000	"
" Middle Branch channels.....	150,000	"
Making in all.....	1,230,000	"

Or if first plan for work at Spring Gardens is adopted, with 200 feet channels.....1,580,000 c. yds.

While it is important for the commercial interests of the city that all of this work be accomplished, it is not absolutely necessary that it should all be undertaken in any one season.

Recommendation as to future work.

I would therefore recommend, that if it be not convenient for the City to expend during this year the amount required to remove the whole quantity given above, that such work as is determined upon be distributed over the harbor (as to the relative amounts of material to be removed), as follows:—1st, *upper* middle ground; 2d, *lower* middle ground; 3d, Main Branch and Spring Gardens; 4th, Back Basin and docks.

I would also recommend that in the distribution the larger proportion of work to be done should be devoted to the removal of the worst portions of the two (2) "middle grounds.' The channel in Main Branch (to coal oil wharves), maintains its depth, but is too narrow to be easily traversed by the large class of vessels engaged in the transport of petroleum, and should receive some attention; the other channels of the original project can, without inconvenience to the public, be left as they are during this year.

In accordance with these views, I recommend the following work to be done during 1878:

Summary of recommendations.

Upper "middle ground," (opposite Jones' Falls)	300,000 c. yds.
Lower "middle ground," (Canton)	200,000 "
Main Branch, (to oil wharves)	100,000 "
Middle Branch, (Spring Gardens)	100,000 "
Back Basin and docks	50,000 "
Or a total excavation of	750,000 c. yds.

Probable cost of future work.

It is altogether probable that the cost of this work will be greater than that of the previous two

seasons, owing to the fact that the shoaler part of the *lower* "middle ground" is composed of hard material; and also that as all the available safe places of deposit in "open water" above Fort Carroll have been filled up by the material heretofore removed from the harbor, such as is hereafter excavated will have either to be transported below Fort Carroll, or deposited behind cribs or bulkheads along the shores.

All free dumping grounds are filled up.

There is a reasonable ground for the expectation that in the near future an economic method of depositing dredged material behind bulkheads will be made available, rendering it possible at a low cost to "fill in" along the low shores of the river, thus making valuable land while disposing of dredged material.

It is not possible, under these circumstances, in advance of the reception of "bids" to state the exact cost of this work; but I am of opinion that from 13½c. to 14c. per cubic yard will cover the average cost, including all expenses of every kind, such as for office, tug, supervision, &c., &c.

Estimated cost per c. yd.

The work herein proposed, together with that heretofore done, will go very far toward the removal of the principal obstructions to the formation of such a harbor as our growing commerce requires, and it may confidently be expected that, after the season of 1879, expenditures for dredging can be confined to the cost of removing the annual deposits and maintaining the desired depths in the channels, requiring probably not over $50,000 per annum.

CONSTRUCTION AND REPAIR OF WHARVES.

Since 31st October, 1876, the following work has been done in this direction:

Hanover st. The wharf at foot of Hanover street has been *extended* 100 feet (by 60 feet width) under contract with Mr. Glenn, for $1,820.00.

Charles st. A wharf 200 feet long, by 40 feet wide, has been built at foot of Charles street, under contract with Mr. Glenn, for $2,898.

To Mr. R. B. Mason was also paid $500, as one-half (½) the cost of filling out and enclosing the bed of Charles street, from "low water" line to inner end of wharf.

Broadway. The wooden crib, enclosing foot of Broadway (County Wharf), which was decayed and broken, has been replaced by a substantial stone wall, set in cement and supported on a foundation under water of piles and timber, under a contract with Mr. J. B. Ely, for the sum of $2,225.78. The length of wall built was 222 feet, the height 5 feet (above foundations), with an average section of about 3¾ feet.

Long Dock and Pratt St. The platforms at Long Dock, for 200 feet in length, were renewed, and the pile and timber structure dividing the State and City, water fronts on Pratt street, was rebuilt, under contract with Mr. Edward Flaherty, for $632.99.

Bowley's wharf & South street. The platforms at Bowley's and South street wharves, were almost entirely renewed, under contract with Mr. Ely, for $1,205.50.

The cost of pile and timber wharves, (new,) was about 34 cents per sq. ft. of surface. The cost of

renewing platforms on top of solid piers, was about 17 cents per sq. foot. The cost of stone wall, and pile and timber foundations, at Broadway, was about $10 per running foot of wall.

FUTURE REQUIREMENTS.

The public wharves are now generally in fair condition, but the enclosing structures at some of the street ends, (notably at West Falls avenue and Johnson street,) are in bad condition, and should be rebuilt. The wooden crib or wall, enclosing the Back Basin, is in many places decayed and broken, and needs repair; more especially the central pier at the east end, projecting from Caroline street, which is a nuisance, both externally and internally, as the timbers are decayed, and the interior filling is in many places a mass of decayed vegetable and animal matter.

Back Basin.

This should be removed.

This pier should be entirely removed, or else the eastern end of the dock, as far down as Harford run, should be drained and filled up.

Street "ends."

The retaining walls at street ends, in the Harbor, as well as that enclosing the Back Basin, have been built of *wood*, and I would recommend that in future, all repairs of such works, as well as all new works of the kind, be built of *stone;* the cost of the latter kind of work will not greatly exceed that of the wooden structures, and when once properly done, it is done for all time; whereas, the wooden walls are constantly requiring repair and removal; and even when in good condition, absorb and retain from the waters of the harbor, much that is injurious to health.

All walls to be built of stone.

Cost of work around the Back Basin.

The cost of entirely renewing the retaining walls surrounding the Back Basin, I would estimate at from $25,000 to $30,000, (exclusive of supervision.) This work need not all be undertaken at once, (in fact, it would not be advisable to do so;) but the work could be divided over five or six years; the new wall being commenced at the termination of the walls now about being built under the Commissioners for Improving Jones' Falls, and continued thence as required, around the Basin.

Estimates for year 1878.

For the present fiscal year, the requirements for the *repair* of wharves, I estimate as follows:

Bulk Heads at street ends	$3,500 00
Renewal of wharf platforms	1,200 00
And to this, if considered proper, might be added for rebuilding walls of Back Basin	5,000 00
Which would make a total of	$9,700 00

OBSTRUCTIONS TO NAVIGATION, ICE, WRECKS, &c.

Ice.

During the last week in December, 1876, the Harbor being almost entirely closed by ice, the three tugs, Banks, Baltimore and Kirkland, were hurriedly and rather imperfectly equipped for breaking ice, and were sent out to render such aid and assistance to commerce as they could. They were continuously engaged, either in breaking ice about the Harbor, or in towing vessels into and out of port, from January 1, 1877, to February 12. During

Work done by city tugs.

this time, they towed into or out of the port, twenty-one (21) square rigged, and fifteen (15) schooner rigged vessels of considerable size, besides oyster boats, &c.

Cost of work.

The cost of equipment and service, was about $5,700, and about $2,500 was turned into the city treasury, from proceeds of towing.

My views as to the proper method of procedure, to prevent a similar interruption to commerce, were fully set forth in a special report to the Board, of February 1, 1877, and I have had no reason to change my opinions since that date.

WRECKS.

During the year, two (2) wrecks have been removed from the Harbor, one (1) from Back Basin, under contract with Mr. S. S. Thomas, for $150, and another, from the Lower Harbor, under a contract with Mr. Jno. S. Broom, for $150. The City Comptroller having decided that there were *not* "any monies in the city treasury not otherwise appropriated;" and as no responsible owners could be found who might be compelled to pay the cost of removal, both amounts were paid out of the harbor funds.

CONSTRUCTION OF AN ICE-BOAT.

Ordinance received.

On the 7th of May official information was received of the passage of an ordinance directing the Harbor Board to have constructed an "ice boat," of sufficient power and capacity to meet the require-

ments of this port, during the most vigorous winter, and appropriating $140,000 for the purpose.

$140,000 appropriated.

General features of good ice boats.

An investigation into the characteristics of the most successful "ice boats" in the country, developed the fact, that the most important elements in their success were *strength of hull and steam power*, the models being supposed to be reasonably well proportioned; it was further determined, that in view of the various requirements that a boat for this harbor might be expected to fulfil, a "side wheel" steamer was to be preferred to a "screw propeller."

First advertisements for *Wooden* Hull.

On June 7th, proposals were asked for the *wooden* hull and machinery of such a boat as was considered suitable; the proposals received under this call were opened June 22d, when it was found that no offer had been made, which would enable the boat to be completed for service during this winter (1877-'78).

Second advertisements, for *Iron* Hull.

Ample time being thus evidently remaining in which to complete the vessel in time for service in the winter 1878 and '79, further consideration was given the subject, which resulted in an advertisement for proposals for building an *iron* hull.

Contracts for hull and machinery awarded.

The proposals received were opened August 7th, and resulted in the award of a contract to Mr. W. T. Malster, for the construction of an *iron* hull, &c., for the gross sum of $64,000; to include the boat complete except machinery and movable outfit; and to Messrs. Charles Reeder & Co, for the necessary machinery for $62,173. Under these contracts fair progress has been made in the construction of

the boat, by both parties, and there exists no reasonable ground for doubting that it will be completed in time for service next winter.

Dimensions and power of Boat.

The proposed boat will have the following dimensions:

Length of hull, (between perpendiculars)	200 feet
Width of beam	34 "
Depth of hold	14 "
Diameter of wheels	24 "
Width of wheels	12 "
Tonnage (about)	1200 tons
Engines (horizontal directing acting)	2
Diameter of cylinders	45 ins.
Length of stroke	8 feet
Piston speed (per minute)	320 "
Steam pressure, by gauge	60 lbs.
Number of Boilers	6

The engines will be arranged to operate either as "condensing" or "non-condensing," their nominal "horse power" being about 1,200, with a capacity for working to a much higher power.

Qualities of hull, &c.

The "hull" will be built in the strongest manner, heavily plated, and well braced, and it is believed that the boat will be found in every respect equal to the strongest and best models in this country.

CITY PROPERTY.

Sale.

Under the ordinance, so directing, a large portion of the movable property, machinery, &c., belonging to the late Port Warden's Department, was transferred by the Board to the Comptroller of the City, and was by him sold at auction in July last.

The remainder, except the tug boats, and a few minor articles, was transferred to him in November and sold on the 22d of that month. Inventories in detail, showing the disposition of all of this property, have been submitted to, and filed by the Board.

Tug boats.

Of the four (4) tug boats still retained by the Board, by virtue of the ordinance first named, three (3) of them are among the most powerful and valuable in this harbor, and would probably bring fair prices if sold, even in the present depressed condition of all property. They are at present of no real use to the city, except possibly, that one of them might be converted into a Harbor Police and Fire Boat.

The duties of the executive officer of the Board, can be much more easily performed with the aid of a steam launch, than with any of those large boats, which are entirely too unwieldy for his purposes in the harbor.

The tugs will deteriorate greatly in value if "laid up," and though when hired out they appear to be remunerative, it will be found eventually when the wear and tear is counted, that it is a losing business. The launch, of proper size, could probably be purchased for $3,500, and could be run at one-half the cost of the large tugs, and I would for the reasons given, recommend that authority be asked, to sell the tugs (four (4) in number,) and procure a launch or yacht, somewhat similar to the one now in use between Fort McHenry and the City.

Recommend sale of tugs and purchase of steam launch.

REGULATION OF ANCHORAGE GROUNDS.

In connection with the subject of harbor improvement, I am impressed with the necessity for a change in the methods of marking anchorage grounds in the harbor; as well as in the supervision of the anchoring of vessels; as it is at present, the channels recently opened, are frequently so filled with vessels at anchor, as to render them impassable; the position and extent of the grounds are ill defined, and the enforcement of such laws as do exist on this subject, is not always to be relied upon. The Harbor Masters of the several districts now have charge of these matters, and it is quite probable that they have not the means of reaching vessels, and of observing all violations of the law; it is quite certain, that (except in one case,) this duty is not very strictly performed.

Recommendations.

I would therefore recommend that proper anchorage grounds be laid off in the several parts of the harbor, and that they be kept plainly marked by buoys, (barrels or kegs would answer,) and that the duty of enforcing the regulations as to anchoring of vessels *outside* the Port Warden's lines, be entrusted to one agent or officer of the City, for the whole harbor, with proper facilities as to transportation, &c., for the thorough performance of his duties.

Buoys, &c., for channels.

I would also recommend that the channels in the harbor be marked by buoys at the angles and intersections; and those in the section known as the "Spring Gardens," be marked by "dolphins," or piles driven along the banks; some such marks are necessary in all dredged channels, to enable vessels to pass each other with safety and dispatch.

SURVEYS, &c.

No complete surveys of the harbor have been made by order of the Board, owing to the fact that one has been in progress, and is just completed, by the U. S. Coast Survey Parties, for the use of Commission on Port Warden's lines, appointed by the President, at the request of the Legislature of the State.

Examinations of dumping grounds.

Examinations have been made from time to time, of the "dumping grounds," to determine if the deposited material was moving toward the channels, but in every case it was found that the material either did not move at all, or else moved shoreward.

Surveys for estimates, &c.

Surveys of limited areas have been made for the purpose of forming estimates of work required, and soundings have been daily made, (while dredges were at work,) behind and in advance of each machine, to regulate their cutting, and to determine if the work was being properly executed.

Low water.

In this connection it may be well to state, that all "depths" given in this report, refer to the plane of mean low water," as derived from a series of observations continued through many years at Fort Carroll, Baltimore Harbor, by the officers of the U. S. Engineer's Corps, engaged in that work. This "plane of reference" was found, in comparison recently, to differ only one (1) inch from that established by the Coast Survey Parties engaged in the recent survey of the harbor.

Respectfully submitted,

N. H. Hutton, *Eng'r.*

ANNUAL REPORT

OF THE

CITY SOLICITOR,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

REPORT.

OFFICE OF THE CITY SOLICITOR,

Baltimore, January 1st, 1878.

To the City Council of Baltimore:

It is the duty of the City Solicitor to report annually in writing to the Council the number of pending cases at the time of the report, and any decisions made within the year upon the construction of any ordinance. In conformity with this requirement I have to report, that the most important cases now pending are: The case of Chauncy Brooks et al. *vs.* the City, which has just been argued in the Court of Appeals, in which the question is raised as to the right of the city to assess under the Act of 1838, property lying in the county and adjacent to the city, for benefits arising out of city improvements. It was contended in this case by the complainants that the Act was unconstitutional, because the system of taxation authorized by it was necessarily partial and unequal, in as much as property owners in the county were assessed for special benefits under their own local street laws, without aid or contribution from the city, and it would be inequitable, therefore, to make them pay in addition for city improvements. The controversy grew out of the proposed widening of Eutaw street and the extension of Eutaw Place from Laurens street to the Northern Boundary.

Pending in the same Court are also the cases of the City against Musgrave, in which the point is, the right of the City to repeal one of the numerous Jones' Falls ordinances, after certain parties had been notified by the Commissioners to suspend business, as their property would be required in improving the Falls as then contemplated. Also the case of Burns against the City, in which the appellant denies the right of the City to assess him a special paving tax for paving Light street, under an ordinance which, in its preamble, recites that the work is necessary for the general benefit—also the case of the City against Radecke & Co., in which the very important point is to be determined as to whether the City, having by resolution of the Mayor and City Council granted permission to erect a steam engine in the limits of the city, and employ the same in the making of boxes, on condition that the parties applying for the permit would remove the engine on six months' notice, by the Mayor, can refuse to comply with the notice upon the ground that it was given by the Mayor alone, and nothing short of the full exertion of the whole corporate power of the city as vested in both Mayor and Council can rescind and terminate the permission. It was the opinion of the Court below, that the joint action of both the Council and the Mayor was necessary, and acting upon this opinion, I immediately addressed a communication to the Mayor, which was promptly reported to the Councils, recommending a repeal of the resolution granting the permit to Radecke & Co. The First Branch took action and passed a repealing resolution, but it fell through in the Second Branch.

In the meanwhile the most valuable property in the City, on Baltimore street, in the vicinity of McClellan's alley, is permitted to suffer under the standing menace of a conflagration, which may at any time break out with the most disastrous

consequences. The great fire which originated in Thomas' planing mill in 1873, has demonstrated the danger of steam engines in the midst of dry lumber, and when the principal part of the fuel used is supplied by shavings. But in addition to the great risk of fire to be apprehended from this cause, the position of the box factory operated by Radecke & Co., located as it is, in a very crooked alley, where access by the fire department is both difficult and dangerous, constitutes the steam engine in this particular case a nuisance, which ought to be abated by the Council if possible, without waiting for the action of the Court. I would respectfully renew, therefore, the recommendation heretofore made, that the Council pass a resolution repealing the permission to Radecke & Co. to erect a steam engine, &c., &c.

There is also in the Court of Appeals the case of the City against the St. Agnes Hospital, in which the appellees below recovered in ejectment a water front on the south side of the basin.

Also the case of the City against Ideson & Co., involving questions of practice of no very great moment. Also the case of Dickinson against the City, brought to recover damages for alleged injury to the premises on North street during the time the City had leased the same from Dickinson and wife, the City having afterwards purchased the reversion, and now owning and using the premises as the Mechanical Department of the Water Board.

All of these cases are yet to be argued.

In the Circuit Court of this City there are several cases still pending, the most important perhaps being the case of the Trustees of the Sheppard Asylum against the City, reported in my last report to the Council. This case has been set down for hearing on the 16th inst. The case of Darling against the

City is still pending in this Court, the question being whether city property is liable to be taken and sold under ordinary process of execution, upon a judgment recovered against the City. It has already been decided that a Mechanic's lien could not be enforced, and that attachment would not lie against the City.

There is also pending in this Court the case of George Armistead et al. against the City, in which the complainants seek to restrain the City from the construction of the Light street sewer.

In the City Court there is quite a number of cases against the City, the most of them, however, being cases in which parties who purchased stalls in the Richmond and other markets have sued to recover the purchase money paid, upon the ground that the Comptroller had no authority to sell, and also because certain promises were made by him at the sale, which have not been carried out. In the case of the City against Grapetz in this Court, it was held by Judge Pinkney, that the Comptroller, without an ordinance passed for the purpose, had no authority to sell market stalls, any more than he could sell any other property of the City, without being authorized and directed to do so, and the only mode by which the sale in that case could be validated by the City would be by a ratifying ordinance. Such an ordinance was passed by the Council, and approved by the Mayor on the 4th day of June, 1877. The effect of this decision, however, was to invite suits by the purchasers of stalls who found they had made a bad bargain, and hoped to escape its consequences by taking advantage of the want of authority in the Comptroller to make the sale.

Several of these parties resided in Baltimore county, and had to be sued there for balance of purchase money, and three

of the cases were subsequently removed to Carroll county, and one so removed was sent back to the city on affidavit and suggestion of the defendant. There is one of these cases in Howard County Court, and two or three still pending in Baltimore county.

Besides the cases in the City Court already mentioned, there is the case of Miss Barrickman against four of the School Commissioners, in which, by direction of the Mayor, I entered an appearance for the defendants. The case of DeHaven against the City, and Paterson, ditto. Also some Magistrates' Appeal cases, and appeals from the award of the Commissioners for Opening Streets. There are three or four cases of no great moment pending in the Court of Common Pleas, not including those on the stet docket, and there are sixty-three cases inclusive of those on the stet docket in the Superior Court, which latter fall under the control and direction of the City Counselor—a full statement of which could only be made by him. It may be remarked, however, that a large proportion of these cases, particularly where the City is defendant, will not be tried.

In the U. S. Circuit Court there are pending three cases.

And in the Supreme Court the case of Luther N. Boggs before reported.

The Counselor represents the City also in these cases.

Besides the butcher cases before mentioned, there is pending in the Circuit Court of Baltimore County, the case of Belt et al. *vs.* the City, which was mentioned in my last report. This case has recently been argued, and is now waiting the decision of the Court.

There is also the case of Mathers against the City—ejectment for land connected with condemnation for water right.

The only case outside of the State, besides the case of Boggs, is the very important case of MacConnell & Son, before reported, against the City. By direction of the Finance Commissioners and the Mayor, I made two ineffectual trips in company with Robert T. Baldwin, Esq., to Pittsburg, for the purpose of trying this case. Both times it was postponed at the instance of the plaintiffs—absence of witnesses being the first excuse, and sickness of the senior plaintiff the second. It may not be out of place to state that in this case the plaintiffs claim ten thousand dollars ($10,000) for professional services rendered as Attorneys for the City in the matter of the collection of the City's claims against the Pittsburg and Connellsville Railroad Company, on account of interest paid by the City on the stock issued in behalf of the Company. For this sum, they hold a judgment in a foreign attachment proceeding. The City is now engaged in an effort either to set aside the judgment upon the ground that attachment will not lie against a foreign municipal corporation, or to open the judgment and have the case tried upon its merits. As to the first point, the decision of the Court below was adverse, and the case taken to the Supreme Court of Pennsylvania, and the second, as stated, is pending until the case can be tried. In the meanwhile various efforts have been made looking to compromise, but none of them successfully.

This is a pretty full statement of the present condition of the litigation in which the City is concerned either as plaintiff or defendant.

Besides the construction of the resolution in the Radecke case, there have been no decisions of any importance involving the construction of ordinances. As incidentally connected with this subject, however, I beg leave to renew a recommendation, that the Council prohibit by ordinance the bringing any

suit for any penalty or forfeiture, by any of the City Officers for violation of the ordinances, without first consulting the law officers of the City, or one of them. For the want of some such provision the City was uselessly thrown into a heavy bill of costs, growing out of a contest between rival bill posters, in which even a lobbyist would be puzzled to point out where the City's interest came in.

There have been one or two cases settled by compromise during the year, which, although not within the letter of the requirement as to this report, I consider within the spirit of it. The case of the City against John Lee Chapman, before reported, was settled by accepting from the defendant one thousand dollars ($1,000), and twenty-eight dollars and fifty cents ($28.50) costs, which sum was paid to the City Register April 6th, 1877.

The reasons for this settlement are fully presented in my last report. Also the case of the City against William E. Woodall & Co., was compromised. This was a claim for dredging done by the force of the old City Yard. After full consultation with the Mayor, and by his direction and authority, the sum of four thousand dollars ($4,000) was accepted in full satisfaction of this claim and turned over to the City, on the 16th of May, 1877. In conclusion, I hope it will not be considered as a departure from the true bounds of such a report as this, if I take occasion to renew some recommendations heretofore made, and suggest others in connection with the needs for making this arm of the municipal service more useful and effective.

The year's experience has convinced me more and more of the necessity of a permanent organization of this department. In no way has this been made more apparent than by the legislation affecting the City, which has been heedlessly passed,

and which might have been readily checked or prevented, at Annapolis, by proper intervention. Every measure affecting the City, ought to be submitted to its law officers, before it is passed in the shape of a bill, either for the purpose of revision and correction, or the discovery and detection of private interests cloaked under the disguise of public benefits.

It is notorious that the City has been made to pay quite recently, a large sum of money for an old bridge, which it did not want, but which it was required to take by force of an Act of Assembly, which might have easily been defeated if its object had fully been understood and exposed.

With a law department properly organized and officered, such legislation would be impossible. But this is not the only ground for urging such a reform—cases every now and then come quite accidentally to the ears of the law officers.

Where the City has been exposed to, if it has not suffered actual injury, which might not have occurred if this department had been organized as it should be, and as the late Mayor recommended to the Council. For example, it fell out only the other day, that a large sum of money had been paid as damages for the taking of a piece of ground in a certain street in a case where a former Solicitor for the City had refused to give his certificate, claiming that the ground in question had clearly been dedicated. There was no record of the opinion, and it is quite probable that the Examiner of Titles knew nothing of it. It is not suggested or intimated that there was anything wrong in this payment, as the Examiner might have been right in his opinion that there was no dedication, but reference is merely made to it for the purpose of showing the necessity of proper organization, which would include of course the keeping of continuous records, which could be consulted in a fixed place, and as a part of the equipment of an

office. As to what should constitute the plan of this organization I would prefer not to express an opinion until some future time, when I would be free and disembarrassed of personal considerations. In this connexion I may say, however, that the addition of the Reports of the Supreme Court of the United States to the Maryland Reports and Digest, before purchased, has been a valuable aid. These, with a few text books on Municipal Law, furnish a very good working library. Having an office in the City Hall too, where at stated times the law officers could be consulted, was another step in the right direction. But much, very much, remains to be done, which I may take another occasion to suggest.

Very respectfully,

JOHN V. L. FINDLAY,

City Solicitor.

ANNUAL REPORT

OF THE

Trustees of the Poor

OF THE

CITY OF BALTIMORE,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE

Year Ending Oct. 31, 1877, and Nov. and Dec., 1877.

Officers of the Institution.

BOARD OF TRUSTEES.

HENRY SNYDER, *Pres't.*

JOSEPH CLARKSON, THOMAS WHITE,
EDWIN THOMAS, JOSEPH FRIEDENWALD, *Sec'y.*

JOHN MITCHELL.....Superintendent.
WM. HENRY HISS.....Purveyor.
JAMES F. BAYLY.....Clerk.
MARY MILLER.. .....Matron.
BENJAMIN F. SAPP..... .....Gardener.
DANIEL BELL..... ....Engineer.
WILLIAM KAISER.....Assistant Engineer.
J. WESLEY SAPP..... .....Messenger.
CHARLES JONES..... .....Baker.

MEDICAL DEPARTMENT.

DR. L. McLANE TIFFANY .....Visiting Physician.
DR. ST. GEORGE W. TEACKLE .... " "
DR. JOSEPH T. BARTLETT.....Apothecary.

REPORT.

Bayview Asylum, October 31st, 1877.

To the Honorable the Mayor and
City Council of Baltimore:

Gentlemen:

The undersigned, Trustees of the Baltimore City Almshouse, have the honor herewith to submit their report of the operations of this Institution for the year ending with the 31st day of October, 1877, as follows, to wit:

INMATES.

There were admitted to the Institution during the year 1,765 persons. There were born in the building during the same period 65 children, making a total of 1,830 who received the benefits of this Asylum during the year.

The average number of inmates during the year was 810⅓, being an excess of 16⅔ over the average number of the preceding year.

The amount expended during the year was $63,109.33, which embraced $59,326.48 drawn from City Treasury; also balance on hand October 31st, 1876, of $1,286.35, and $2,496.50, which the Trustees received from various sources, of which sum $1,820.26 was, under the provisions of the ordinances of the

city, which went into effect on the first day of March, 1877, they were required to, and did, pay over to the City Register, making the gross expenditure for the year ending October 31st, 1877, $61,289.07, and making the sum per capita for the support of the inmates $75.63½, being less in amount than has been expended in any preceding year. The number in the House at this time is 752. Of the number at present in the Institution 612 are whites, and 140 are colored. Of the 1,830 admitted during the year, 1,043 were born in the United States, and 787 were of foreign birth. Of the number born in the United States, 487 claim their nativity in the City of Baltimore, 236 were born in the counties of the State of Maryland, and 320 claim their nativity in other States of the Union. Of the 65 infants born in the Institution during the year, 31 were whites, and 34 were colored.

FINANCIAL.

Exhibit No. 1, of this report, will show the amount received, and the source from whence it was derived during the year, as also the purposes for which it was expended.

The amount of the appropriation made by the city for the support of the Institution for the year ending on the 31st of October, 1877, was $70,000. By reference to the aforesaid exhibit it will be observed that of the amount appropriated $59,326.48 has been drawn from the City Treasury, leaving a balance of $10,673.52 standing to the credit of the Institution. The amount drawn from the City Treasury, together with the amount realized from other sources, as is set forth in said exhibit, has enabled the Trustees to meet and discharge all the liabilities incurred by them in the management of the trust confided to them.

SANITARY.

The health of the inmates has been excellently good during the entire year. There has been no epidemic of any form.

Your attention is respectfully called to the accompanying report of the Visiting Physicians for a detailed statement of the operations of the department under their immediate charge.

For important statistics in connection with the Asylum we would refer you to the accompanying tables, marked from A to M, both inclusive, as also to the reports of the Engineer, Gardener and Baker.

The Trustees take much pleasure in bearing testimony to the admirable discipline that has prevailed throughout the Institution during the year, and for the faithful and efficient manner in which the several officers connected with the Asylum have discharged their respective duties, and for the interest they at all times manifested to promote the welfare and comforts of the inmates.

Respectfully submitted.

HENRY SNYDER,
JOSEPH CLARKSON,
THOMAS WHITE,
EDWIN THOMAS,
JOS. FRIEDENWALD.

EXHIBIT No. 1.

Exhibit showing the cash balance in the hands of the Trustees at the close of the fiscal year ending October 31st, 1876; also, the gross amount received by them during the year terminating with the 31st day of October, 1877, the sources from whence derived, and the purposes for which disbursements were made, and the amount expended.

1876.	Dr.		1877.	Cr.	
October 31,	To cash balance on hand	$1,286 35	October 31,	By amount paid for supplies, embracing food, fuel, clothing, bedding and other necessaries..	$44,339 73
1877.					
October 31,	To amount received from City Comptroller on account of annual appropriation.....	59,326 48	" 31,	By amount expended on farm account, embracing provender for horses, mules and cows, repairs of carriages and wagons, purchase and repairs of farm implements, shoeing animals, and such other expenditures as are properly chargeable to farm account.....	1,881 54
" "	To amount received from sales of bones, barrels and offal.....	594 23			
" "	To amount received from sale of live stock	583 30			
" "	To amount received from sale of medicine.....	24 97			
" "	To amount received from resident students.....	449 00			
" "	To amount received from inmate boarders.....	845 00	" 31,	By amount paid for hospital stores.....	1,401 01

		October 31,	By amount paid for construction, and expenses incurred in repairs about the buildings and fences.....	868 15
		" "	By amount paid for salaries and hire account	12,122 64
		" "	By amount paid Trustees for per diem.....	676 00
		" "	By cash paid City Register, as required by ordinance of the city..	1,820 26
	$63,109 33			$63,109 33

TABULAR STATEMENT

OF THE

SUPERINTENDENT

MARKED A TO M,

For the Year 1877.

TABLE A.

Showing the number of persons admitted, born, discharged, eloped, died and bound out; also, the number remaining at the expiration of each month from November 1, 1876, *to October* 31, 1877.

Date.	Admitted.	Born.	Discharged.	Eloped.	Died.	Bound.	Remaining.
November	190	3	108	22	16	.....	825
December	227	10	90	35	8	.....	929
January	154	8	93	33	13	.....	952
February	114	3	97	39	15	.....	918
March	123	1	131	55	16	.....	840
April	118	5	110	38	14	.....	801
May	140	4	143	38	13	.....	751
June	124	9	103	37	25	.....	719
July	130	4	82	24	14	.....	733
August	144	5	101	21	20	.....	740
September	146	9	91	30	10	.....	764
October	155	4	120	34	17	.....	752
Total	1765	65	1269	406	181	.....	9724

On the books October 31, 1876		778
Total ingress		1,830
		2,608
Total egress		1,856
In the House Ootober 31, 1877		752

TABLE B.

Showing the birth place of persons admitted to the Almshouse from November 1st, 1876, to October 31st, 1877.

Natives.		Foreigners.	
Almshouse	80	Germany	266
Baltimore	407	England	47
Maryland	236	Ireland	385
Virginia	107	France	12
Pennsylvania	56	Scotland	20
New York	36	West Indies	8
Delaware	11	Canada	15
Massachusetts	4	Denmark	2
North Carolina	10	Austria	2
South Carolina	4	Sweden	2
New Jersey	6	Wales	4
Kentucky	3	Belgium	4
District of Columbia	27	Switzerland	4
Indiana	3	Italy	2
Illinois	3	Spain	2
Georgia	7	Bohemia	3
Ohio	9	Russia	1
Louisiana	2	Poland	4
Maine	4	Holland	1
Connecticut	5	Portugal	1
Michigan	1	Bavaria	1
Tennessee	1	Malta	1
Missouri	2		
Alabama	1	Foreigners	787
At sea	1	Natives	1043
Unknown	17		
	1043	Total	1830

TABLE C.

Showing the ages of persons admitted to the Almshouse from November 1st, 1876, to October 31st, 1877.

Under 1 year	82
From 1 to 5 years	9
" 5 to 10 "	4
" 10 to 15 "	16
" 15 to 20 "	119
" 20 to 30 "	464
" 30 to 40 "	390
" 40 to 50 "	294
" 50 to 60 "	234
" 60 to 70 "	140
" 70 to 80 "	52
" 80 to 90 "	8
" 90 to 100 "	1
Unknown	17
Total	1830

TABLE D.

Showing the period of residence in the city of all persons admitted into the Almshouse from November 1st, 1876, to October 31st, 1877.

Born in the Almshouse	80
Born in Baltimore	407
Less than one week	93
One week, and less than one month	50
One month, and less than three months	61
Three months, and less than six months	46
Six months, and less than one year	69
One year, and less than two years	93
Over two years	913
Period of residence unknown	18
Total	1830

TABLE E.

Showing the number of persons admitted into the Almshouse from November 1st, 1876, to October 31st, 1877.

Intemperate adults	1022
Temperate adults	684
Adults whose habits are unknown	16
Children of intemperate adults	56
Children of temperate adults	52
Children of parents whose habits are unknown	
Total	1830

TABLE F.

Showing the monthly average of persons in the Almshouse from Nov. 1st 1876, to Oct. 31st, 1877.

Date.	WHITE.			COLORED.			Total.	WHERE FROM.		Total.
	Men.	Women.	Children.	Men.	Women.	Children.		City.	Elsewhere.	
November	358	289	11	62	99	6	825	449	376	825
December	426	307	13	68	101	14	929	494	435	929
January	435	302	17	77	109	12	952	467	485	952
February	418	296	12	70	107	15	918	456	462	918
March	359	292	11	67	99	12	840	442	398	840
April	318	293	14	68	98	10	801	414	387	801
May	289	283	10	67	93	9	751	390	361	751
June	267	282	11	58	90	11	719	384	335	719
July	287	278	11	57	89	11	733	392	341	733
August	299	275	7	55	93	11	740	391	349	740
September	318	278	12	54	91	11	764	390	374	764
October	328	276	8	55	79	6	752	390	362	752
Total	4102	3451	137	758	1148	128	9724	5059	4665	9724
Monthly average	$341\frac{10}{12}$	$287\frac{7}{12}$	$11\frac{5}{12}$	$63\frac{2}{12}$	$95\frac{8}{12}$	$10\frac{8}{12}$	$810\frac{1}{3}$	$421\frac{7}{12}$	$388\frac{9}{12}$	$810\frac{1}{3}$

TABLE G.

Showing the number of persons committed to the Almshouse from November 1st, 1876, to October 31st, 1877, and their age, sex, color, and period of commitment.

Date.	Sex and Age.					Color.			Period of Commitment			
	Males over 21.	Males under 21.	Females over 18.	Females under 18.	Total.	Whites.	Blacks.	Total.	Under 3 months.	3 to 6 months.	6 months and over.	Total.
November	19	1	9	2	31	24	7	31	26	4	1	31
December	16	3	10	1	30	23	7	30	29	1	.....	30
January	5	2	6	.....	13	5	8	13	12	1	.....	13
February	6	2	3	.....	11	5	6	11	8	3	.....	11
March	12	2	7	3	24	14	10	24	24	.....	.....	24
April	6	1	3	....	10	6	4	10	9	1	.....	10
May	9	.....	8	2	19	12	7	19	19	.....	.....	19
June	9	.....	14	.....	23	16	7	23	20	3	.....	23
July	13	1	5	.....	19	15	4	19	19	.....	.....	19
August	9	1	11	1	22	17	5	22	22	.....	.....	22
September	17	2	6	.....	25	18	7	25	25	.....	.....	25
October	8	.....	12	1	21	16	5	21	19	2	.....	21
Total	129	15	94	10	248	171	77	248	232	15	1	248

TABLE H.

Showing the birth-places of persons committed to the Almshouse as vagrants by magistrates from November 1st, 1876, to October 31st, 1877.

Natives.		Foreigners.	
Baltimore	40	Germany	33
Maryland	54	Ireland	42
Virginia	20	England	11
Pennsylvania	9	West Indies	2
New York	8	Italy	1
District of Columbia	7	France	1
North Carolina	1	Canada	1
New Jersey	1	Wales	2
Ohio	1	Sweden	1
Connecticut	2	Scotland	4
Nova Scotia	1		
Tennessee	1	Foreigners	98
Unknown	5	Natives	150
	150		248

TABLE I.

Showing the work done by inmates from November 1st, 1876, to October 31st, 1877.

10,955 days	labor, at $1.50	$16,432 50
2,198 "	washing and ironing, at 50 cts	1,099 00
939 "	carpenters' work, at $2.50	2,347 50
351 "	painting and glazing, at $2.50	877 50
470 "	blacksmithing, at $1.50	705 00
313 "	tinners' work, at $2.00	626 00
938 "	cobblers' work, at $1.50	1,407 00
26 "	harness-makers' work, at $1.50	39 00
1,017 "	tailoring work, at $1.50	1,525 50
641	shirts made, at 15 cts	96 15
390	undergarments, at 15 cts	58 50
285	frocks, at 25 cts	71 25
134	pairs stockings knit, at 20 cts	26 80
11 "	drawers made, at 15 cts	1 65
257	aprons, at 5 cts	12 85
20	infants' slips, at 10 cts	2 00
245	bed ticks made, at 15 cts	36 75
248	pillow cases, at 15 cts	37 20
320	pillow ticks, at 5 cts	16 00
197	bed sheets, at 6 cts	11 82
90	window curtains, at 12½ cts	11 25
133	cotton jackets, at 25 cts	33 25
36	table covers, at 10 cts	3 60
97	towels, at 5 cts	4 85
163	slips at 25 cts	40 75
30	muslin caps, at 5 cts	1 50
160	quilts, at $1.60	256 00
		$25,781 17

TABLE K.

Showing the quantity of clothing issued to the inmates from November 1, 1876, to October 31, 1877.

Date.	Shoes.	Shirts.	Men's Hose.	Pants.	Vests.	Jackets.	Aprons.	Hats.	Flannel Shirts.	Slips.	Frocks.	Women's Stockings.	Drawers.	Women's Jackets.	Flannel Petticoats.	Under Garments.
November.....	27	62	2	24	10	6	44	10	6	29	44	70	2	4	.....	100
December.....	18	57	29	20	2	11	59	5	2	18	75	43	3	6	3	79
January.....	48	79	16	26	1	7	20	1	1	12	28	25	2	5	2	55
February.	54	66	9	28	.....	12	33	.....	.....	31	26	42	.....	2	5	68
March.....	12	67	9	23	.....	4	19	.....	.....	21	34	8	1	8	.....	53
April.....	21	45	4	37	.....	2	31	.....	.....	30	29	2	.....	3	.....	40
May	43	46	.....	30	.....	8	21	.....	.....	25	45	.....	.....	8	.....	75
June	16	44	.....	24	.....	7	25	.....	.....	29	41	.....	.....	13	.....	37
July	12	45	.....	12	.....	.....	22	.....	.... .	23	33	.....	.....	25	.....	58
August	12	53	.....	8	.....	1	35	.....	.....	25	49	.....	.....	14	.....	51
September.....	11	64	1	23	1	5	56	.....	.....	16	40	.....	.....	25	.....	54
October.....	71	80	.....	41	2	17	28	3	2	8	27	70	4	24	3	57
Total.....	345	708	70	296	16	80	393	19	11	267	471	260	12	137	13	727

TABLE L.

Date.	Births.					Deaths, adults.				Deaths, children.				
	White males.	White females.	Colored males.	Colored females.	Total.	White males.	White females.	Colored males.	Colored females.	White males.	White females.	Colored males.	Colored females.	Total.
November	1	...	...	2	3	4	5	4	...	1	...	...	2	16
December	1	2	2	5	10	1	3	1	3	...	...	...	...	8
January	...	5	2	1	8	6	2	13	3	...	...	...	1	13
February	1	...	1	1	3	6	3	3	3	...	...	...	...	15
March	...	1	...	...	1	5	2	5	4	...	...	...	...	16
April	2	2	...	1	5	7	...	6	1	...	...	...	...	14
May	...	1	2	1	4	4	3	1	5	...	...	..	...	13
June	...	5	1	3	9	3	8	8	5	...	1	...	...	25
July	1	...	2	1	4	1	2	3	6	...	1	1	...	14
August	1	...	3	1	5	7	4	3	3	1	...	...	2	20
September	4	1	3	1	9	5	1	...	2	...	...	2	...	10
October	1	2	1	..	4	5	2	6	3	1	...	...	...	17
Total	12	19	17	17	65	54	35	41	38	3	2	3	5	181

TABLE M.

Showing the names, quantity, and average cost of Articles purchased for the Institution from November 1st, 1876, to October 31st, 1877.

A.

Apples	8 bbls.	$1.91 per bbl.
Advertising proposals		42.75
Axle grease	72 lbs.	5½ per lb.
Arrow root	10 "	30 "

B.

Brushes, hand-dusting	2 doz.	$6.00 per doz
" white wash	2½ "	18.00 "
" deck scrubs	2 "	3.50 "
" hand scrub	4 "	3.00 "
" paint	1 "	9.75 "
" shoe	½ "	7.00 "
" sweeping	2 "	15.00 "
" horse	½ "	18.00 "
Brandy	3 gallons	8.00 per gallon
Buckets, water	5½ doz.	2.50 per dozen
" oak, night	5 "	14.00 "
Butter	4511 lbs.	21¾ per lb.
Beans, white	132 4/6 3/6 bushels	2.30 per bushel.
Brooms, corn	16 doz.	3.45 per dozen

TABLE M.—Continued.

Brooms, hickory	17 dozen	2.75 per dozen
Books and stationery		$166.45
Buckwheat flour	100 lbs.	4 cents per lb.
Bacon, shoulder	22,823 lbs.	$7\frac{1}{7}$ "
" hams	4,799 lbs.	$13\frac{2}{3}$ "
Beef	56,150 lbs.	$4\frac{2}{3}$ "
Beef and steak	23,520 lbs	$11\frac{1}{7}$ "
Buttons, coat	84 doz.	57 cents per doz.
" pants	5 great gross	1.00 per gr't grs.
Bed ticking	1,320¼ yds.	14 cents per yd.
Baskets	½ doz.	9.50 per dozen
Bricks	1100	10.00 per thous.
" fire	450	45.00 "
Brogans, men's	180 pairs	1.17 per pair
Buskins, women's	156 "	1.05 "
Blankets	100 "	1.65 "

C.

Chalk	10 lbs.	4 cents per lb.
Crackers, water	1,219 lbs.	$8\frac{1}{2}$ cents "
" soda	356 lbs.	$9\frac{3}{5}$ cents "
Calico	2,688 yds.	$5\frac{3}{8}$ cents per yd.
Candles, adamantine	100 lbs.	13¼ cents per lb.
Cheese	263 "	$15\frac{2}{3}$ cts. "
Corn meal	175 "	1.60 per hdd.
Coal, George's Creek, contract	$757\frac{9}{2}\frac{6}{2}\frac{3}{4}\frac{3}{0}$ tons	4.57 per ton

TABLE M.—Continued.

Coal, Lykens Valley, contract	97$\frac{6}{0}\frac{9}{0}\frac{0}{0}$ tons	5.20 per ton
Coffee, Java, green	574 lbs.	31 cents per lb.
" Rio, green	7,132 lbs.	18$\frac{3}{8}$ cents "
Coffee, Hummel's essence	1,275 lbs.	6$\frac{5}{8}$ cents "
Cakes, ginger	11 bbls.	6.18 per bbl.
" assorted	4 bbls.	9.11 "
Crash	106 yds.	13 cts. per yd.
Check	281$\frac{3}{4}$ yds.	14$\frac{3}{4}$ cts. "
Chamois skins	3	71 cts. each
Currants	25 lbs.	10 cents per lb.
Citron	12 lbs.	35 cents "
Corn	709 bushels	66$\frac{1}{4}$ cts. per bush.
Cement	3 bbls.	2.25 per bbl.
Cows	2	65.00 each.
Charcoal	140 bbls	45 cts. per bbl.
Collars, horse	2	4.00 each
Combs, dressing	11 doz.	75 cts. per doz.
" tuck	2 doz.	88 cents "
" fine tooth	10 doz.	65 cents "
" curry	$\frac{1}{2}$ doz.	2.00 "
Cotton waste	40 lbs.	12 cents per lb.
Copperas	25 lbs.	3 cents per lb.
Castings	7,258 lbs.	3$\frac{3}{4}$ cents per lb.
Cotton, knitting	32 lbs.	55 cents per lb.
" spool	57 doz.	49 cts. per dozen
" darning	2 lb.	55 cents per lb.

TABLE M.—Continued.

	D.	
Drugs per contract		$975.37
Dryers, patent	4 lbs.	15 cents per lb.
	E.	
Engineers stores		$156.75
Emory Cloth, sheets	2 doz.	63 cts. per dozen
	F.	
Flannel, canton	182 yds.	14 cts. per yd.
" red	30¾ yds.	17½ cents "
Flour, family	28 bbls.	9.88 per bbl.
" extra	1,402 bbls.	7.62 per bbl.
Files	4 doz.	1.65 per dozen
Fire clay	5 bbls.	3.20 per bbl.
	G.	
Glass, window	5 boxes	$3.00 per box
Glass and Queensware		66.77 "
Gum camphor	6 lbs.	35 cents per lb.
Glue	15 lbs.	20 cents per lb.
Gas burners	3 doz.	1.00 per dozen.
Grains	468 bushel	10 cts. per bush.

TABLE M.—Continued.

	H.	
Hooks and eyes	1 gross	1.50 per gross
Hose, men's woolen	5 doz.	2.25 per dozen
" gum	6 feet	40 cents per foot
Hoes, garden	$\frac{7}{12}$ doz.	5.75 per dozen
Hinges	2 doz. pair	75 cents "
Hame strings	2 doz.	1.00 per "
Hops	90 lbs.	32 cents per lb.
Hay	5 tons	20.00 per ton
Hominy	180 bushel	1.43 per bush.
Hardware		$169.70
Harness blacking	1 bottle	50 cts. per bottle
Horses	1	$160.00
Herrings	15 bbls	7.00 per bbl.
	I.	
Indigo, blue	3 lbs.	1.25 per lb.
	L.	
Linen towels	4 doz.	2.50 per dozen.
Leather, sole	744½ lbs.	36½ cents per lb.
Lime	65 bushels	30 cents per bush.
Lard	1,998 lbs.	11⅕ cents per lb.
Lead, white	225 lbs.	9⅞ cents per lb.
Lumber, culls, dressed	6,383 feet	$34.00 per thous.
" miscellaneous	7,862 "	30.00 "

TABLE M.—Continued.

M.

Mens wear	1,579 yds.	22 cents per yd.
Muslin, brown	4,551½ yds.	7⅓ cents "
" bleached	73¾ yds.	8 cents "
Mosquito netting	3 pieces	85 cents per piece
Matches	40 gross	2.10 per gross
Mustard	24 lbs.	45 cents per lb.
Malt, ground	6 bushel	1.39 per bushel
Molasses	703½ gallons	37 cts. per gallon
Mackerel, No. 1	9 kitts	2.86 per kitt
" No. 3	14 bbls.	9.50 per bbl.
Mutton	40,780 lbs.	6⅔ cents per lb.
Middlings	685 bushels	32 cents per bush.

N.

Nails, finishing	17 papers	14 cts. per paper
" cut	5 kegs	3.05 per keg
" wrought	20 lbs.	7 cents per lb.
Nutmegs	1 lb.	1.25 "

O.

Oats	900 bushels	44 cents per bush.
Oil, fish	1 gallon	1.20 per gallon
" lard	10 gallons	89 cts. per gallon
" Merchant's Gargling	1 doz.	5.00 per doz.
" linseed	17 gals.	68 cts per gallon

TABLE M.—Continued.

Oil, neatsfoot	2 gallons	1.44 per gallon.
" coal	144 gallons	15 cents per gal.
" gas	48 bbls.	5.83 per bbl.
Oilcloth	42 yds.	50 cents per yd.
Onions	1 bbl.	3.40 per bbl.
	P	
Padlocks	1 doz.	$4.00 per dozen
Pins	3 pkgs.	55 cents per pack
Pies	1500	7 cents each
Plaid, domestic	280½ yds.	11½ cents per yd.
Putty	350 lbs.	4 cents per lb.
Potatoes, Irish	647½ bushels	96¾ cts. per bush.
Potash	650 lbs.	12½ cents per lb
Pork, salt	1,624 lbs.	9 cents per lb.
Pepper, black	240 lbs.	20 cents "
Peas	212⅓ bushels	1.53 per bushel
	R.	
Rice	10,580 lbs.	6½ cents per lb.
Raisins	20 lbs.	23 cents per lb.
Roach poison	2 doz.	1.75 per dozen
Rivets, tin	4 lbs.	56 cents per lb.
	S.	
Spectacles	4 doz. pairs	2.00 per dozen
Sand paper	5 quires	25 cents per quire

TABLE M.—Continued.

Syrup, golden	4 gallons	90 cts. per gallon
Starch	140 lbs.	4⅔ cents per lb.
Spoons, tinned iron	½ gross	9.00 per gross
Soap toilet	4 boxes	2.25 per box
" mammoth laundry	670 lbs.	7 cents per lb.
" country	7,983 lbs.	4⅜ cents "
Shoe laces, women's	3 gross	45 cts. per gross
Shoe strings, leather	4 bundles	76 cts. per bundle
Sponges	3	70 cents each
Sauce, Worcester	½ doz.	10.00 per dozen
Shovels	1⅔ doz.	14.00 "
Screws	11 gross	1.05 per gross
Salt	138 bushels	68¾ cts. per bush.
" ground alum	21 bushels	39 cents "
" rock	100 lbs.	1¾ cents per lb.
Solder	45 lbs.	22½ cents "
Shoe findings		$20.43
" pegs	7 gallons	20 cents per gal.
" knives	2½ doz.	1.63 per dozen
Snuff	368 lbs.	65 cents per lb.
Sugar, brown	21,325 lbs.	10 cents "
" white	2,166 lbs.	11⅞ cents "
Shoe blacking	4 doz.	58 cents per doz.
Shoeing and repairs		$219.73
Seed, turnip	5 lbs.	42 cents per lb.
" cabbage	3 lbs.	3.38 per lb.
" beet	1 lb.	1.50 per lb.
" bean	2½ quarts	25 cents per qt.

TABLE M.—Continued.

Seed, clover	2 pecks	238 cents per peck
" radish	1 lb.	1.00 per lb.
" salsify	1½ lb.	1.25 per lb.
" corn	1 bushel	72 cents per bush.
" peas	½ bushel	90 cents "
" potatoes	20 "	1.30 "
" carrot	1 lb.	1.00 per lb.
" parsnip	1 lb.	75 cents per lb.
Straw	27⅓ tons.	16.50 per ton
	T	
Thread, patents	30 lbs.	1.68 per lb
Tacks, carpet	84 papers	8 cents per paper
" lasting	2 gross	30 cents per gross
Trusses	½ doz.	2.33 each
Tallow	50 lbs.	12 cents per lb.
Turpentine	12 gallons	50 cents per gal.
Tin plate	3 boxes	14.50 per box
Tobacco	1,887¼ lbs.	58 cents per lb.
Tea, gunpowder	45 lbs.	1.37 per lb.
" black	397 lbs.	43½ cents per lb.
" imperial	379 lbs.	49 cents per lb.
Tar	3 bbls.	2.80 per bbl.
	V.	
Vinegar	266½ gallons	26 cents per gal.
Varnish, copal	7 "	2.60 per gallon

TABLE M.—Concluded.

	W.	
Wood, pine	77¾ cords	4.87 per cord
Whips	2	1.37 each
Wine, Sherry	4 gallons	4.00 per gallon
Whiskey	139½ gallons	2.39 "
Whiting	15 lbs.	3 cents per lb.
	Y.	
Yeast powder	14 doz.	1.37 per doz
	Z.	
Zinc, French	50 lbs.	15 cents per lb.

Report of the Engineer.

Bayview Asylum, November 1, 1877.

To the Hon. Board of Trustees:

Gentlemen:

I herewith most respectfully present to you the Annual Report of this department for the twelve months ending October 31, 1877.

Daniel Bell, *Engineer.*

Total amount of Cumberland Coal consumed, and by what Department of the Institution.

1877.	Lbs.	Tons	Pounds.
Flue Boiler	1,612,800	720	.....
Tubular Boiler	96,320	43	.....
Pest Hospital	96,320	43	.....
Main Gate	13,440	6	.....
Blacksmith Shop	9,710	4	750
West Gate	4,480	2	.....
East Gate	4,480	2	.....
Carpenter's Shop	7,720	3	1,000
	1,748,950	780	1,750

Total amount of Lyken's Valley Coal consumed, and by what Department of the Institution.

1877.	Lbs.	Tons.	Pounds.
Centre Kitchen	54,340	24	580
Bake House	69,440	31	.....
Gas House	48,040	21	1,000
Matron's Kitchen	45,900	20	1,100
Ironing Room	29,720	13	600
	247,440	110	1,040

Cumberland Coal on hand, November 1, 1877.....000 Tons.
Lyken's Valley Coal on hand, November 1, 1877..... 80 "

REPORT OF THE GARDENER.

BAY VIEW ASYLUM, November 1st, 1877.

To the Honorable Board of Trustees.

GENTLEMEN :—Permit me most respectfully to present this my Annual Report as Gardener of the Institution for the fiscal year ending October 31st, 1877.

Very respectfully,

BENJAMIN F. SAPP,
Gardener.

Articles.	Bushels.	Dozen.	Bunches.	Pounds.	Gallons.	Tons.	Number.	Price.	Amount.
Cabbage							8,995	$0 05	$449 75
Potatoes	158							65	102 00
Carrots	100							80	80 00
Tomatoes	265							70	185 50
Turnips	461							65	299 65
Spinach	30							60	18 00
Beets			879					5	43 95
Celery			2,058					8	164 64
Radishes			970					2½	24 25
Lettuce							510	2½	12 75
Kale Sprouts	869							45	391 05
Parsley			2,250					1	22 50
Parsnips	130							1 25	162 50
Horse Radish			313					5	15 65
Onions			3835					2	76 70
Onions, (setts)	20							3 00	60 00
Cabbage Sprouts	702							60	421 20
Green Peas	79							1 00	79 00
Cucumbers		330						8	26 40
Pickles							10,586	4 50	47 64

Lima Beans	14	.....	.....	.....	.....	.....	.....	1 25	17 50
String Beans	15	.....	.....	.....	.....	.....	.....	80	12 00
Corn, (green)	.....	162	.....	.....	.....	.....	.....	15	24 30
Peppers	.....	598	.....	.....	.....	.....	.....	8	47 84
Cauliflowers	.....	.....	.....	.....	.....	.....	63	15	9 45
Cantaleups	.....	.....	.....	.....	.....	.....	675	3	20 25
Hay	.....	.....	.....	.....	.....	30	.....	15 00	450 00
Ice	.....	.....	.....	.....	.....	125	.....	6 00	750 00
Pigs	.....	.....	.....	.....	.....	.....	74	2 25	166 50
Pork	.....	.....	.....	3664	.....	.....	.....	7½	274 80
Calves	.....	.....	.....	.....	.....	.....	4	5 75	23 00
Cows	.....	.....	.....	.....	.....	.....	1	.....	35 00
Horse	.....	.....	.....	.....	.....	.....	1	.....	50 00
Livery	.....	.....	.....	.....	.....	.....	.....	.....	18 00
Eggs	.....	485	.....	.....	.....	.....	.....	25	121 25
Butter	.....	.....	.....	183	.....	.....	.....	40	73 20
Milk	.....	.....	.....	.....	2893	.....	.....	25	723 25
Cream	.....	.....	.....	.....	182½	.....	.....	1 00	182 50
									5,682 67

Report of the Baker.

Bayview Asylum, Nov. 1, 1877.

To the Hon. Board of Trustees:

Gentlemen:

I herewith present my Annual Report as Baker of this Institution, for the fiscal year ending October 31, 1877.

Respectfully,

Charles Jones, *Baker.*

Flour received		1,402 bbls.
Loaves of bread baked	331,203	
" " on hand Nov. 1, 1876	307	
	331,510	
Sent to store room	330,993	
On hand Nov. 1, 1877	517	
Weight of bread baked		339,483¾ lbs.
Average weight of each loaf		1 lb. 4 oz.

REPORT

OF THE

Visiting Physicians,

FOR THE YEAR ENDING OCTOBER 31, 1877.

REPORT.

Bayview Asylum, October 31st, 1877.

To the Hon. Board of Trustees of Bayview:

Gentlemen:

We herewith transmit the Report of the Medical Department of Bayview Asylum for the year ending October 31, 1877. During this period there have been 1,830 admissions, which added to the number remaining in the Institution on October 31, 1876, 778, makes the total number of persons cared for 2,608. Number of deaths 181. 811 persons were treated in the Hospital, and of this number only 132 were transferred from the dormitories, the remaining 679 being sent directly to the Hospital from the city. This, we think, shows a remarkably healthy condition of the inmates, and refutes without comment the numerous charges that have been brought during the year of insufficient food, clothing, heat, &c. The cause of so many deaths from Phthisis is due to the fact that the Asylum is a sort of retreat for the poor afflicted with this disease, and as its termination is so well known even among the rich, the large proportion of deaths is easily accounted for. From the tabulated statement it will be seen that four cases of Puerperal fever have occurred in the Institution. Of these

three died. The disease was imported into the wards by a woman who had been clandestinely confined in Baltimore City, and who died three hours after admission here. The four puerperal women with whom she was brought in contact during her brief stay contracted the malady. Prompt removal of the Lying-in Department to the Pest Hospital, and thorough renovation of the infected wards prevented an epidemic. There were 65 births, and 13 deaths among the infants.

INSANE DEPARTMENT.

The maladies of the inmates of this department are of the most chronic character; those holding out a possibility of a cure having been transferred to "Spring Grove," and are especially benefitted, as regards their general health, by the opportunities the large yards attached to this department afford for open air exercise. In this department a large number of the inmates are epileptics, who call for the usual care and watchfulness so necessary to this disease. These unfortunates are under the care of orderlies and nurses, who receive compensation for their services, and execute their duties with kindness and attention, so that these patients are as comfortable as circumstances will permit. Considering the many irresponsible acts the insane and epileptics are apt to commit, it is very gratifying to report that no accidents have occurred that could be traced to any neglect of those in charge of this department.

To the members of the Board our special acknowledgements are due for the courtesy with which they have met any of our suggestions. To the Resident Physicians much praise and gratitude is due for the faithfulness and ability with which they have performed their duty towards the Asylum and its

inmates. The Superintendent, Matron and other officers of the Institution, we cordially thank for the cheerful assistance they have rendered us in their various departments. We present the tabular statement of diseases treated.

Very respectfully,

St. G. W. Teackle, M. D.

L. McLane Tiffany, M. D.

Visiting Physicians.

TABULAR STATEMENT

Of the number of cases treated in Bayview Asylum, for the year ending October 31st, 1877.

Diseases.	Admitted.	Cured.	Relieved.	Died.	Remaining.
Abscess	9	7	2	.....	.....
Arthrites (chronic)	2	.....	2	.....	.....
Abortion	1	.....	.....	1	.....
" threatened	1	1	.....	.....	.....
Apoplexy	8	.....	.....	8	.....
Anthrax	1	1	.....	.....	.....
Anchyloses	2	.....	2	.....	.....
Albuminuria	15	1	4	9	1
Aortic and Mitral Constriction	1	1	.....	.....	.....
Asthma	4	1	3	.....	.....
Amputation	3	2	.....	.....	1
Ascites	2	1	1	.....	.....
Angina (simple)	1	.....	1	.....	.....
Bronchitis (chronic)	11	.....	10	1	.....
" (acute)	14	11	2	.....	1
Burns	9	9	.....	.....	.....
Bursites	3	1	2	.....	.....
Brain (inflamation of)	2	.....	.....	2	.....
" (softening of)	1	.....	.....	1	.....
" (abscess of)	1	.....	.....	1	.....
Broken Ribs	1	1	.....	.....	.....
Cancer	4	.....	1	3	.....
" (of Uterers)	3	.....	1	2	.....
Caries	15	.....	10	4	1
Cystites	5	.....	2	3	.....
Cirrhosis	1	.....	.....	1	.....
Carbuncle	3	3	.....	.....	.....
Cholera Morbus	1	1	.....	.....	.....
Cellulites (diffuse of leg)	1	1	.....	.....	.....
" (pelvis)	1	.....	.....	1	.....
Colotomy	1	.....	.....	.....	1

TABULAR STATEMENT—Continued.

Diseases.	Admitted.	Cured.	Relieved.	Died.	Remaining.
Constipation	1	1	.....	.....	.....
Coxalgia	2	.....	2	.....	.....
Conjunctivitis	6	2	4	.....	.....
Cyanosis	1	.....	.....	1	.....
Diarrhœa, (chronic)	18	5	.....	10	3
Dysentery	14	10	.....	3	1
Debility, (general)	22	9	6	7	.....
Debauch	237	237	.....	.....	.....
Dislocation	1	1	.....	.....	.....
Dyspepsia	1	.....	1	.....	.....
Dog Bite	3	3	.....	.....	.....
Entero-Colitis	1	.....	.....	1	.....
Empyema	4	.....	.....	4	.....
Erysipelas	14	12	1	1	.....
Epilepsy	54	.....	.....	1	53
Enlarged Prostate	3	.....	3	.....	.....
Eczema, (chronic)	1	.....	1	.....	.....
" (acute)	1	1	.....	.....	.....
Endometritis	1	.....	1	.....	.....
Epididymitis	6	4	2	.....	.....
Ecthyma	1	.....	1	.....	.....
Epithiloma	1	.....	1	.....	.....
Endocerricitis	2	2	.....	.....	.....
Exhaustion	1	.....	.....	1	.....
Fractures	7	5	2	.....	.....
Furuncle	2	1	1	.....	.....
Fever, (Typhoid)	7	2	.....	4	1
" (Puerpal)	4	1	.....	3	.....
" (Ephemeral)	2	2	.....	.....	.....
" (Malarial)	89	81	.....	.....	8
Fatty Tumor	1	1	.....	.....	.....
Fistula, (in Ano)	4	3	.....	.....	1
" (vesico-vaginal)	3	.....	2	.....	1

TABULAR STATEMENT—Continued.

Diseases.	Admitted.	Cured.	Relieved.	Died.	Remaining.
Frostbites	9	9			
Gangrene	3		2	1	
Gastralgia	1	1			
Heart Disease	30		11	18	1
Hemiplegia	12		8	2	2
Hydro-thorax	1			1	
Herpes Zoster	2	2			
Hydrocele	3		3		
Hernia	2		2		
Hæmorrhoids	1	1			
Hæmaturia	1	1			
Hysteria	5	3	2		
Hydro-Sarcocele	1		1		
Injury, (from fall)	6	5	1		
Iritis	2		2		
Jaundice	1	1			
Keloid	1				1
Lumbago	3	3			
Leucorrhœa	2	1	1		
Lead Poisoning	1		1		
Marasmus	4			4	
Meningitis	2			2	
" (cerebro spinal)	1			1	
Measles	2	2			
Miscarriage	1	1			
Malingerers	11	11			
Necrosis, (of Phalanx of Finger)	1	1			
" (of Sternum)	1		1		
" (of Fermui)	1		1		
" (of head of Tibia)	1		1		
Neuralgia, (Intercostal)	5	3	1		1
Oedema, (of Leg)	1	1			
Orchitis	2	2			

TABULAR STATEMENT—Continued.

Disease.	Admitted.	Cured.	Relieved.	Died	Remaining.
Old age	5	1	.....	4	.....
Opium eating	4	.....	4	.....	.....
Paraplegia	5	.....	2	1	2
Phthisis	96	.....	40	43	13
Pleurisy	15	11	.....	4	.....
Pneumonia	17	12	.....	5	.....
Paronychia	2	1	1	.....	.....
Pericarditis	1	.....	.....	1	.....
Pediculi, (capitis)	1	1	.....	.....	.....
Paralysis	6	.....	2	4	.....
Peritonitis	1	.....	.....	1	.....
Periostitis	2	.....	2	.....	.....
Phlegmon, (of hand)	1	.....	.....	.....	1
Rheumatism, (chronic)	26	.....	25	.....	1
" (acute)	27	22	4	.....	1
" (syphilitic)	13	.....	13	.....	.....
Retention of Urine	2	.....	1	.....	1
Synovitis	2	2	.....	.....	.....
Sun Stroke	3	2	1	.....	.....
Scalds	1	1	.....	.....	.....
Sore throat	3	2	1	.....	.....
Stomatitis	1	1	.....	.....	.....
Stricture, (of Urethra)	2	1	1	.....	.....
" (of Rectum)	1	.....	1	.....	.....
Scrofula	2	.....	2	.....	.....
Spinal irritation	1	.....	1	.....	.....
Sprains	7	5	2	.....	.....
Sycosis	1	1	.....	.....	.....
Senile Catarrah	1	1	.....	.....	.....
Uræmia	3	2	.....	1	.....
Ulcers	59	37	16	.....	6
Uterine, (Hemorrhage)	2	1	1	.....	.....
Uterine, (Displacement)	13	4	7	.....	2

TABULAR STATEMENT—Concluded.

Diseases.	Admitted.	Cured.	Relieved.	Died.	Remaining.
Venereal Diseases	155	84	55	.....	16
Vaginitis	13	3	9	.....	1
Wounds, (contused)	2	1	1	.....	.....
" (lacerated)	6	5	1	.....	.....
Worms, (intestinal)	2	1	.....	.....	1
	1266	674	303	166	123
INSANE PATIENTS.					
Females	164	.....	61	5	98
Males	118	.....	48	7	63
Receiving Cells	732	451	200	3	78
Total	2280	1125	612	181	362

SUPPLEMENTAL REPORT

SUPPLEMENTAL REPORT.

BAYVIEW ASYLUM, Baltimore, January 1, 1878.

To the Honorable the Mayor and
City Council of Baltimore.

GENTLEMEN:

We respectfully submit this as a supplemental report, showing the operations of the Board of Trustees of Bayview Asylum from the 1st day of November until the 31st day of December last past, both days inclusive. The Board charges itself with the balance of the appropriation made for the last fiscal year, as will appear from the foregoing report, and unexpended by them, as shown by said report; as also money received by them from various sources of revenue, as follows, to wit:

To balance of appropriation unexpended.....	$10,673 52
To amount received from sales of bones, grease, &c.,	51 95
" " " " resident students.....	125 00
" " " " inmate boarders.....	33 00
Total.....	$10,883 47

And they claim credit for the following disbursements made by them during the said months of November and December, as follows, to wit:

By amount paid for supplies, embracing food, fuel, clothing, bedding and other necessaries.....	$7,348 60
By amount expended on farm account, embracing provender for horses, mules and cows, repairs of carriages and wagons, purchase and repairs of farm implements, shoeing animals, and such other expenditures as are properly chargeable to farm account.....	194 01
By amount paid for hospital stores.....	191 88
By amount paid for construction and expenses incurred in repairs about the buildings and fences,	264 77
By amount paid for salaries and hire account.....	2,176 94
By amount paid Trustees for per diem.....	96 00
By amount paid City Register, as required by ordinance of the city.....	209 95
	$10,482 15
By balance of said appropriation still undrawn for and unexpended.....	401 32
Total.....	$10,883 47

RECAPITULATION.

To amount of appropriation for fiscal year ending October 31, 1877...		$70,000 00
By amount expended for fiscal year ending October 31, 1877.....	$59,326 48	
By amount expended for November and December, 1877.....	10,272 20	
By balance of appropriation unexpended..	401 32	
	$70,000 00	$70,000 00

Amount paid City Register, as required by ordinance of the city, for fiscal year ending October 31, 1877	$1,820	26
Amount paid for November and December, 1877	209	95
	$2,032	21
Balance of appropriation unexpended	401	32
Balance standing to credit of Bayview	$2,433	53

JOSEPH CLARKSON,
THOMAS WHITE,
EDWIN THOMAS,
JOS. FRIEDENWALD.

TABLE M.

"SUPPLEMENTARY."

Showing the names, quantity, and average cost of articles purchased for the Institution from November 1st 1877, to December 31st, 1877.

A.

Apples	7 bbls.	$3.57 per bbl.

B.

Brushes, paint	2	55 cents each
Brandy	1 gall.	8.00 per gall.
Butter	966 lbs.	23½ cents per lb.
Beans, white	8½ bushels	2.58 per bushel
Brooms, corn	2 doz.	3.40 per dozen.
" hickory	10 doz.	2.75 " "
Buckwheat	125 lbs.	3 cents per lb.
Bacon, shoulder	4246 lbs.	8 " "
" ham	986 lbs.	13½ cents per lb.
Beef	8225 lbs.	4.45 per hundred
Beef and steak	3933 "	11 cents per lb.
Bed ticking	603¼ yds.	13¾ cents per yd.
Brogans, men's	60 pairs	1.20 per pair
Buskins, women's	60 "	90 cents per pair.

TABLE M.—Continued.

C.

Crackers, water	209 lbs.	8½ cents per lb.
" soda	57 "	9½ " "
Calico	809½ yds.	6⅓ cents per yd.
Cheese	50 lbs.	14½ cents per lb.
Corn meal	50 "	1½ " "
Coffee, Rio, green	1187 lbs.	18 " "
" Hummel's essence	221 lbs.	6½ " "
Cakes, ginger	7 bbls.	$6.25 per bbl.
" sugar	2 "	9.23 "
Crash	33¾ yds.	16 cents per yd.
Check	134 "	16½ cents per yd.
Currants	20 lbs.	9 cents per lb.
Citron	8 "	25 " "
Cows	1	65.00
Cotton waste	10 lbs.	9 cents per lb.
Castings	3701 lbs.	3⅔ " "
Cotton, knitting	10 lbs.	57½ " "
" spool	12 doz.	37½ cents per doz.

D.

Drugs, per contract	$171.35

E.

Engineers stores	$67.50

TABLE M.—Continued.

	F.	
Flannel, canton	187¼ yds.	13⅓ cents per yd.
Flour, family	6 bbls.	$9.50 per bbl.
" extra	258 bbls.	6.86 "
Files	2	68 cents each
Fire clay	1 bbl.	4.00 per bbl.
	G.	
Glass, window	2 hlf. boxes	$275 per hlf. box
Glue	20 lbs.	30 cents per lb.
Gas burners	2 doz.	1.25 per doz.
	H.	
Hooks and eyes	1 gross	$1.00 per gross
Hose, men's	6 doz.	3.00 per doz.
" gum	6 feet	40 cents per foot
Hops	15 lbs.	22 cents per lb.
Hominy	24 bushels	1.33 per bushel
Hardware		12.96
Herrings	2 bbls.	6.50 per bbl.
	I.	
Indigo blue	1 lb.	$1.25 per lb.

TABLE M.—Continued.

L.

Leather, sole	122 lbs.	35⅔ cents per lb.
Lumber, com. culls	1003 feet	$26.00 per thous.
" miscellaneous	195 "	2 cents per foot
Lead, white	75 lbs.	9 cents per lb.
Lard	336 lbs.	9¾ " "
Lye, concentrated	1 doz.	1.10 per doz.

M.

Men's wear	373¾ yds.	25 cents per yd.
Muslin, brown	1074½ yds.	6½ " "
Matches	10 gross	$2.00 per gross
" parlor	1 "	2.10 " "
Mustard	12 lbs.	45 cents per lb.
Malt	1 bushel	1.30 per bushel
Molasses	183½ galls.	37 cents per gall.
Mackerel, No. 3	3 bbls.	10.33 per bbl.
Mutton	5980 lbs.	$5\frac{95}{100}$ per lb.
Middlings	150 bushels	30 cts. per bushel

N.

Nails	2 kegs	$2.63 per keg
Nutmegs	1 lb.	1.25 per lb.

TABLE M.—Continued.

	O.	
Oil, lard	2¼ galls.	85 cents per gall.
" linseed	5 "	70 " "
" neatsoot	½ "	$1.25 per gall.
" gas	15 "	5.84 "
Oats	175 bushels	43 cts. per bushel
Oilcloth, black	12 yds.	50 cents per yd.
	P.	
Pins	4 packs	65 cents per pack
Pies	1050 pies	7 cents each
Plaid, domestic	208½ yds.	9 cents per yd.
Putty	75 lbs.	3½ cents per lb.
Potatoes, Irish	300 bushels	59 cts. per bushel
Potash	150 lbs.	12½ cents per lb.
Pork, corned	1067 lbs.	6¾ " "
Pepper, black	30 lbs.	18 " "
Peas	59½ bushels	$1.57 per bushel
	R.	
Raisins	12 lbs.	18¾ cents per lb.
Rice	2426 lbs.	6⅞ " "
	S.	
Sand paper	4 quires	25 cts. per quire
Syrup, golden	2 galls.	55 cents per gall.

TABLE M.—Continued.

Shoe laces, women's	3 gross	35 cents per gross
" " leather	2 bundles	70 cts. per bundle
Sponge	1	40 cents
Salt	33 bushels	63⅓ cts. per bush.
Soap, laundry	200 lbs.	6 cents per lb.
Shoe findings		$4.85
Shoe pegs	3 galls.	20 cents per gall.
Snuff	90 lbs.	65 cents per lb.
Sugar, brown	3680 lbs.	7⅞ " "
" white	296 lbs.	10½ " "
Shoeing and repairs		23.93
Shoe blacking	1 doz.	35 cents per doz.
Straw	5 tons	14.00 per ton

T.

Thread	12 lbs.	$1.50 per pound
Trusses	3	2.33⅓ each
Tin plate	2 boxes	13.25 per box
Tobacco	398 lbs.	51⅓ cents per lb.
Tea, gunpowder	27 "	1.30 per lb.
" black	88 "	45 cents per lb.
" imperial	49 "	50 " "

V.

Vinegar	43½ galls.	26 cents per gall.
Varnish, copal	2 "	$2.50 per gall.

TABLE M.—Concluded.

W.

Wood, pine	47 cords	$4.50 per cord
Wine, Sherry	1 gall.	4.00 per gall.
Whiskey	4 "	4.00 "
Whiting	10 lbs.	3 cents per lb.

Y.

Yeast powders	2 doz.	$1.37½ per doz.

ANNUAL REPORT

OF THE

Water Department,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

OFFICERS OF THE WATER BOARD.

JANUARY 1st, 1878.

Commissioners.

HON. GEORGE P. KANE, MAYOR,
Ex-officio President.
JOHN R. SEEMULLER, *Secretary.*
JOHN F. HUNTER,
GEORGE P. THOMAS,
THOMAS BOND,
GEORGE U. PORTER,
THOMAS W. HALL, JR.

Registrar's Department.

WM. L. SHARETTS, *Water Registrar.*
WM. F. SINCLAIR, *General Book-keeper.*
JAMES A. MARRIAN, *Cashier.*
JAS. S. ETCHBERGER, *Clerk of Errors.*
GEORGE W. SHARETTS, *Ledger Clerk.*
E. N. MORISON, "
JOHN C. HAMMETT, *New Supply Clerk.*
BENJAMIN PRICE, *Collector.*
GEORGE A. COLEMAN, *Collector.*
GEORGE W. EMMERICH, *Hydrant Inspector.*

Engineer's Department.

JAMES CURRAN, *Water Engineer.*
ROBERT K. MARTIN, *Civil Engineer.*
RICHARD D. MURPHY, *Engineer's Clerk.*

REPORT.

OFFICE WATER BOARD, CITY HALL.

BALTIMORE, January 7, 1878.

To the Honorable, the Mayor and

City Council of Baltimore:

GENTLEMEN:

The report of the Water Board for the fourteen months ending December 31st, 1877, is herewith respectfully submitted:

We have received during the fourteen months ending December 31, 1877, from all sources	$1,470,694 02	
Less discount on 1877 and 1878 rents	21,170 22	
		$1,449,523 80
Balance on hand November 1, 1876		520,621 02
Total amount at disposal of the Board during the fiscal year		$1,970,144 82

Our disbursements during the same period have been—

For 18 months' interest on $5,000,000 Water Stock	$462,290 36	
For Gunpowder Permanent Supply	1,097,432 97	
For Distributing Main	36,497 56	
For Working Expenses	97,327 33	
For Pump House, (new machinery)	21,600 00	
For Lake Roland, (dredging)	20,741 54	
For Real Estate	15,600 19	
For Fire Plugs, Pumps and Fountains	7,764 82	
For Tools and Fixtures	3,123 92	
For Telegraph Line	2,388 43	
For New Meters	2,329 11	
For Returned Money	1,299 71	
For Sustaining Mains	273 89	
For Gunpowder Real Estate	745 20	
By balance	200,729 79	
		$1,970,144 82

Leaving a balance to our credit at the close of the fiscal year as follows:

To credit of Revenue account	$305,048 35	
" " Disbursement "	30 00	
In hands of Water Registrar	1,440 18	
	306,518 53	
Less amount due by Gunpowder Permanent Supply account	105,788 74	
		$200,729 79

The decrease in the receipts of water rents, $23,212.97, is accounted for by the general dullness of business in all branches, the most marked falling off being in meter rents.

Considerable additions to the outlays of the department were rendered necessary during the year, embracing:

New Machinery for High Service Pumphouse; Building for Mechanical Department and necessary Machinery; Dredging Lake Roland, enlarging of and additions to Distributing mains; working Temporary Supply Pumps during drought of last summer; in all amounting to $81,583.45.

The Board has given much consideration to the subject of a reduction of water rates, and is unanimously of opinion, that water should be furnished to consumers at as low a figure as it can be afforded by the city. Should a reduction be made, its benefits should work uniformly and not to the special advantage of any one class of citizens. Furthermore, the Board would recommend the consideration of a plan to lessen the cost of collection, and suggests as part thereof, making the reduced water rents payable without discount, a suitable penalty to be enforced for want of promptness in making payments.

A proper time for lower prices to go into effect, would be when the Gunpowder Supply shall have been introduced. To encourage a greater consumption of water at this time would be a hazardous experiment, as it has been shown that during summers similar to that just past, all the resources of the Department are taxed to supply the present demand.

At No. 24 North street, a building was erected during the past year in order to supply the wants of the Water Engineer's Mechanical Department; the offices and shops appertaining to this branch of the service are located here and are supplied with proper conveniences for the economical prosecution of the City's work.

At Hampden, the grounds have been improved, and the reservoir enclosed with a neat iron railing.

At Lake Roland, the unsightly run near the keeper's house, has been arched over with a handsome stone culvert, and the additional land surface thus obtained has been improved and the drainage diverted, very much to the advantage of the City's supply.

The Temporary Supply was brought into requisition this year for the first time since its erection, in consequence of low water in Jones' Falls and Roland Run, in August and September last.

The cost to the Department for maintaining Fire-plugs, Fountains and Pumps since our last report, was $7,764.82, for this, the appropriation was $2,575.00.

In these reports it has been for some years past, the custom of the Board to urge the recognition of the principle that each branch of the City Government should bear the cost of its own maintenance. The subject is mentioned here only in connection with the Water Engineer's estimate, that $10,000.00 will be expended by this Department for similar service this year, and that we hope the Mayor and City Council may consider the claims of this Department to be reimbursed for its outlays.

The quality of the water, which is occasionally very disagreeably affected at irregular intervals, was made the subject of a special report by the Board in response to a resolution passed by your honorable body, directed to the Department. Numerous authorities were cited, showing the existence of a similar condition of water in other cities, the cause of which, according to reports of scientists in different parts of the country, it was found impossible to determine with certainty. Theories were advanced assigning as probable reasons, decay-

ing vegetable matter, as well as the existence of certain animalculæ; the popular reason assigned, caused by the peculiar smell and taste of the water at such times, that dead fish produced the trouble complained of, was not seriously entertained by any of the authorities cited. A free circulation of the water, it was thought by the Board, would go far towards ameliorating the unpleasant condition of affairs, and the Water Engineer was directed to take measures to gradually remove the "dead ends" and make the necessary connections to put the water in circulation. It will be seen that 8,209½ feet of mains were laid to partially effect this object, and work in the same direction will be gradually proceeded with.

It is a source of gratification to the Department, that notwithstanding the fact, that in consequence of rain storms and freshets, the water frequently leaves Lake Roland and is received in Hampden Reservoir in a turbid condition; complaints from consumers, of muddy water, are received only at very rare intervals, showing the importance of keeping a large volume on storage at Druid Lake. In order in the future, if possible, to be able constantly to have on hand a sufficient supply of pure water, it was determined to add another pipe line to connect Hampden Reservoir with Druid Lake, which, when completed, will be able to give the latter at all times a supply equal to its full capacity. The consumption of water in the new section of the city, which is supplied by pumping from Druid Lake to the High Service Reservoir in the Park, has been steadily on the increase since the works went into operation in June, 1874. To such an extent were the works taxed, (the single pump being worked frequently night and day,) and so serious would have been the effect of an accident thereto, that, in order that no risk might be incurred in maintaining a regular supply, duplicate machinery was contracted

for, which, together with the original, is now in satisfactory operation.

GUNPOWDER PERMANENT SUPPLY.

Very satisfactory progress has been made upon this important work since date of our last report. On the main Conduit Line, all the shafts, 15 in number and varying in depth from 65 to 300 feet, are down to grade; of the entire length of the tunnel, 36,500 feet, there had been driven January 1, 1878, 14,750 feet. The drain tunnel around Lake Montebello, was finished during the past year, and it was found to carry off satisfactorily, the stream of water running through the valley in which the reservoir is to be located. This tunnel is 9 feet in diameter, 3,432 feet in length, and cost $97,102.96.

Work upon Montebello Reservoir has progressed satisfactorily.

A fair amount of work has been done at Loch Raven, the Storage Lake at the Gunpowder, consisting mainly of excavation of the sides of the stream to level with the water, and finishing, as far as practicable, the road on both sides.

The dam is being constructed in a manner to insure the greatest obtainable strength and durability; in its present unfinished condition, it has already had opportunities to test those qualities, two heavy freshets passing over it, without displacing any part of the work. The work of laying stone in hydraulic cement, ceased with the approach of cold weather, to be renewed in the Spring.

The total expenditures upon the entire work to date, have been:

For condemnation, purchase of land and of water rights, and expenses thereto incidental.....	$290,915 24
Contractors, salaries of Engineers, &c.....	1,372,363 50
Total.....	$1,663,278 74

Reference is asked to the report of the Engineer in Chief, in which full and interesting particulars of this work are given.

Respectfully submitted,

GEORGE P. KANE, *Ex-officio President*,
JOHN R. SEEMULLER, *Secretary*,
JOHN F. HUNTER,
GEORGE P. THOMAS,
THOMAS BOND,
GEORGE U. PORTER,
THOMAS W. HALL, JR.
Commissioners.

Water Registrar's Report.

REPORT.

Office of the Water Registrar,

City Hall,

Baltimore, December 31st, 1877.

To the Hon. the President

and Members of the Water Board.

Gentlemen:

In compliance with the provision of City Ordinance, No. 10, Section 8, entitled Water Ordinance, I have the honor to submit to your Hon. Board of Commissioners for the Water Department, the annual report, and under authority and requirements of City Ordinance, No. 29, approved May 2d, 1877, and Ordinance, No. 57, approved June 29th, 1877, changing the fiscal year, viz: from the first day of November, 1876, to the thirty-first day of December, 1877, inclusive, embracing fourteen months, with accompanying statistical tables, exhibiting in detail, under appropriate heads, the financial operations of the Registrar's department, showing the amount collected during the fiscal year of 1877, also amount received from the Mayor and City Council appropriations for fire-plugs, pumps and public fountains, and amount received from the Finance Commissioners for Gunpowder Permanent Water

Supply, and amount deposited with City Register, together with disbursements made and warrants issued on the City Comptroller. New supplies added, abatements made, monthly receipts, balances uncollected, statement of the general ledger account, estimated revenue for the year 1878, and cash in hand, and on deposit with City Register for the fiscal year ending the thirty-first day of December, 1877.

In addition to the water rents, and annual appropriations by the Mayor and City Council, I have collected from sale of real estate during the fiscal year of 1877, the following, viz:

From James Hall, Esq., Registrar of the Vestry of Christ Church in full.....	$979 16
Total collections from real estate for 1877.....	$979 16
From Mayor and City Council, annual appropriation for fire plugs.....	$1,000 00
From Mayor and City Council, annual appropriation for drinking fountains.....	875 00
From Mayor and City Council, appropriation for Calvert Street Spring.....	700 00
From Finance Commissioners, proceeds of sale of 1894, five per cent. water stock for Gunpowder Permanent Water Supply	886,600 00
Total rec'd from appropriations and sale of stock,	$889,175 00

The receipts from all sources during the fiscal year, fourteen months, ending the thirty-first day of December, 1877, from water rents, including warehouses, dwellings, offices, carriages, horses, bath-tubs, hand hose, cows, and water furnished through meter to fruit and

oyster packers, beer breweries, railroad companies, distilleries, sugar refineries, butcheries, laundries, livery stables, chemists, brick yards, steamships and tugs, rectifiers, malt houses, cattle yards, boarding houses, white lead works, coal oil refineries, agricultural and other manufacturing establishments, and from plumbing work, and Mount Royal Reservoir, Lake Roland, Gunpowder real estate, Distributing main, Real estate, Gunpowder Permanent Supply, and interest received from purchasers of 1916 five per cent. stock, aggregating.....	$581,519 02
Add from Mayor and City Council annual appropriation for drinking fountains, and proceeds of sale of 1894 five per cent. stock.....	889,175 00
Total rec'd from all sources during the year 1877,	$1,470,694 02

The disbursements made during the fiscal year of 1877, for fourteen months, ending the thirty-first day of December, 1877, were as follows, viz: Plumbing department $12,379 61; repairs $4,233 75; Druid Lake $10,161 40; Lake Roland $8,431 97; pump house $8,616 90; High Service Reservoir $47 25; Hampden Reservoir $4,911 55; Mount Royal Reservoir $292 19; water meters $3,473 30; Registrar's Department $21,274 49; Engineer's Department $10,116 11; Current expenses $4,255 96; Temporary supply $7,966 52; Printing and Stationery $1,129 41; Conduit $36 92; aggregate for working expenses for the department for the year ending 31st December, 1877..... $97,327 33

In addition to the above for working expenses, there was disbursed during the year 1877, for eighteen months' interest on $5,000,000 Water Stock $462,290 36; Real estate $15,600 19; Gunpowder real estate $745 20; Returned money $1,299 71; Gunpowder Permanent Supply $1,097,432 97; Lake Roland dredging $20,741 54; Distributing Main $36,497 56; Pumphouse new machinery $21,600 00; Tools and Fixtures $3,123 92; Telegraph line $2,388 43; Water Meters (new) $2,329 11; Fire Plugs $4,165 45; Pumps and Fountains $3,599 37; Sustaining Main $273 89; amounting to		1,672,087 70
Total disbursements for the year 1877		$1,769,415 03

CASH ACCOUNT.

Balance November 1, 1876	$ 520,621 02	
Gross receipts for the fiscal year of fourteen months, from Nov. 1st, 1876, to Dec. 31st, 1877	1,470,694 02	
Disbursements from Nov. 1st, 1876, to Dec. 31st, 1877		$1,769,415 03
Discount allowed on bills of 1877,		21,016 27
" " " " 1878,		153 95
Balance		200,729 79
	$1,991,315 04	$1,991,315 04

EXTRA EXPENDITURES.

Erection of new building, Mechanical department $15,600 19; dredging Lake Roland $20,741 54; new machinery, Pump house $21 600; Tools and Fixtures, mechanical department, $3,123 92; Telegraph line $2,388 43; amounting to.....	$63,454 08

INCREASE WORKING EXPENSES FOR THE FISCAL YEAR 1877.

Running Temporary Supply $5,869 41; Druid Lake $2,795 98; Lake Roland $3,405 41; Pump House $3,129 82; Hampden new railing $2,928 95.....	18,129 37
Expenditures and increase working expenses for 1877.....	$81,583 45

METERS.

Total number of Water Meters connected to premises of consumers of water is 386. Of this number 110 are ¾ inch; 146, 1 inch; 46, 1½ inch; 27, 2 inch; 51, 3 inch; 3, 4 inch, all of the Worthington patterns.

On account of the general depression of business among the commercial and manufacturing community, the revenue received during the fiscal year has decreased, as will appear by reference to the following summary of receipts:

Statement A exhibits the Water Registrar's cash account.

Statement B exhibits the Registrar's disbursements.

Statement C shows trial balance, general ledger, to December 31st, 1877.

Statement D shows balance sheet, general ledger, to December 31st, 1877.

Statement E. This schedule exhibits monthly receipts of the Water Department for the year 1877.

Statement F. This statement shows the dlsbnrsements of the Water Department for the year 1877.

Statement G shows the new supplies added for the year 1877.

Statement H exhibits abatements made for the year 1877.

Statement I shows the estimated revenue for the year 1878.

Statement K exhibits the balances remaining on the books, uncollected, December 31st, 1877.

Respectfully submitted,

WM. L. SHARETTS,

Water Registrar.

STATEMENTS.

STATEMENT A.

Water Registrar's Cash Account for 14 *Months, or the fiscal year ending December* 31*st*, 1877.

	Dr.	Cr.
To balance on hand Nov. 1, 1876	$ 1,412 38	
" water rents, 1878, $1,539 50		
" " 1877, 272,955 33		
	$274,494 83	
Less discount on '78 and '77 rents.,... 21,170 22		
	253,324 61	
To water rents, 1876	169,673 89	
" " 1875	21,656 77	
" " 1874	11,190 28	
" " 1873	4,372 45	
" Meter rents	60,942 49	
" Interest on back rents	6,240 72	
" Plumbing Department	15,496 72	
" Gunpowder real estate	1,941 84	
" Real estate	979 16	
" Distributing main	711 63	
" Lake Roland	622 55	
" Hampden Reservoir	54 00	
" Mt. Royal "	25 00	
" Gunpowder Permanent Supply	26 00	
" Interest from Finance Commissioners	13,090 69	
" Sale of 1894 5 per cent. Water Stock	886,600 00	
Amount carried forward.	$1,448,361 18	

STATEMENT A—Concluded.

	Dr.	Cr.
Amount brought forward	$1,448,361 18	
To Appropriation for fire plugs and pumps	1,000 00	
" Appropriation for fountains	875 00	
" Appropriation for fountains for Calvert Street Spring	700 00	
By amount deposited with City Register from Nov. 1st, 1876, to Dec. 31st, 1877		$1,449,496 00
By balance in hand Dec. 31st, 1877		1,440 18
	$1,450,936 18	$1,450,936 18

STATEMENT B.

Water Registrar's Disbursement Account for 14 *Months, or the fiscal year ending December* 31*st*, 1877.

	Dr.	Cr.
To balance	$ 2,530 00	
" Warrants on City Comptroller from Nov. 1st, 1876, to Dec. 31st, 1877	1,766,915 03	
By Gunpowder Perm'nt Supply		$1,097,432 97
" Eighteen months interest on $5,000,000 Water Stock		462,290 36
" Distributing main		36,497 56
" Pump house		30,216 90
" Lake Roland		29,173 51
" Salaries Registrar's Dep't		21,274 49
" Real estate		15,600 19
" Plumbing Department		12,379 61
" Druid Lake		10,161 40
" Salaries Engineers' Dep't		10,116 11
" Temporary Supply		7,966 52
" Water Meters		5,802 41
" Hampden Reservoir		4,911 55
" Repairs		4,233 75
" Current expenses		4,255 96
" Fire Plugs		4,165 45
" Pumps and Fountains		3,599 37
" Tools and Fixtures		3,123 92
" Telegraph Line		2,388 43
" Stationery and Printing		1,129 41
" Returned Money		1,299 71
" Gunpowder real estate		745 20
" Sustaining main		273 89
" Mt. Royal Reservoir		292 19
" High Service Reservoir		47 25
" Conduit		36 92
" Balance		30 00
	$1,769,445 03	$1,769,445 03

STATEMENT C.

Dr. *Trial Balance General Ledger*

6	Real estate and water rights	$ 774,838 76
9	Construction of new works	2,722,287 84
16	Mayor and City Council	199,259 61
45	Water Registrar's cash account	1,440 18
82	" disbursement account.	30 00
97	Sustaining main	43,508 21
101	Distributing main	1,503,697 92
121	Repairs	4,233 75
183	Fire plugs	4,050 94
196	Pumps and fountains	1,524 37
209	Water meters	27,641 70
220	Telegraph line	2,388 43
221	Conduit	36 92
222	Lake Roland	28,550 96
233	Druid Lake	10,161 40
245	High Service Reservoir	47 25
252	Hampden Reservoir	4,857 55
258	Mt. Royal Reservoir	267 19
263	Tools and fixtures	3,123 92
265	Pump house	30,216 90
272	Temporary Supply	7,966 52
281	Current expenses	4,255 96
290	Printing and stationery	1,129 41
295	Salaries Registrar's Department	21,274 49
297	" Engineer's "	10,116 11
299	Gunpowder Permanent Supply	1,663,098 74
318	" real estate and water rights.	241,979 38
326	Discount on 1877 rents	21,016 27
327	" 1878 "	153 95
		$7,333,154 63

STATEMENT C.

December 31*st*, 1877. Cr.

2	City six per cent. Water Stock	$ 263,000 00
3	" five " "	6,286,600 00
4	Profit and loss	233,165 80
145	Plumbing Department	3,116 26
376	Water rents, 1878	1,539 50
418	" 1877	272,680 80
451	" 1876	169,121 97
484	" 1875	21,448 18
512	" 1874	10,988 83
535	" 1873	4,320 00
555	Meter rents	60,932 57
583	Interest on rents	6,240 72
		$7,333,154 63

STATEMENT D.

Dr. *Balance Sheet General Ledger*

6	Real estate and water rights	$ 774,838 76
9	Construction of new works	2,743,887 84
16	Mayor and City Council	199,259 61
45	Water Registrar's cash account	1,440 18
82	" disbursement account.	30 00
101	Distributing main	1,547,206 13
183	Fire plugs	4,050 94
196	Pumps and fountains	1,524 37
209	Water meters	21,839 29
263	Tools and fixtures	3,123 92
299	Gunpowder Permanent Supply	1,663,098 74
318	" real estate and water rights.	241,979 38
327	Discount on 1878 rents	153 95
		$7,202,433 11

STATEMENT D.

January 1st, 1878. Cr.

2	City six per cent. Water Stock	$	263,000 00
3	" five " "		6,286,600 00
4	Profit and loss		651,293 61
377	Water rents, 1878		1,539 50
			$7,202,433 11

STATEMENT "E."

Receipts of the Water Department for 14 *Months, or the Fiscal Year Ending December* 31*st*, 1877.

	1876. November.	December.	1877. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Water Rents 1878														$ 1,539 50	$ 1,539 50
" 1877		$ 3,490 32	$44,128 42	$126,850 91	$27,097 56	$ 9,311 10	$5,912 17	$4,857 49	$3,519 00	$6,918 89	$6,736 46	$6,657 17	$7,533 56	19,912 28	272,955 33
" 1876	$6,904 25	20,092 54	24,275 42	17,493 66	12,207 99	28,122 16	20,888 26	19,623 25	8,079 30	2,518 54	3,081 11	1,861 24	1,177 01	3,349 16	169,673 89
" 1875	1,095 23	1,217 92	1,189 78	1,173 88	1,415 90	2,680 78	2,488 58	2,709 41	1,863 28	1,034 55	1,672 49	1,089 01	527 24	1,498 72	21,656 77
" 1874	536 75	709 76	448 38	469 16	819 08	835 80	1,050 40	1,385 96	1,082 71	650 00	1,306 01	578 85	330 67	986 75	11,190 28
" 1873	200 00	515 51	175 13	132 91	605 00	485 51	325 50	264 25	257 50	213 00	561 17	215 47	92 50	326 00	4,372 45
Meter Rents	60 97		13,964 09	166 75	140 71	14,129 10	34 77	10 97	15,257 02	590 45		16,158 42	429 24		60,942 49
Interest on Back Rents	139 45	220 41	140 36	243 62	365 79	811 71	829 26	942 14	627 21	334 22	542 56	341 68	193 28	509 03	6,240 72
Plumbing Department	899 07	618 01	978 39	278 11	1,385 49	1,770 33	1,048 16	983 14	1,160 37	1,048 23	2,666 94	1,313 73	655 68	691 07	15,496 72
Gunpowder Real Estate	131 34	292 50	160 00	378 00	47 00	20 00	260 00	62 50	10 00	260 00	55 00		8 00	257 50	1,941 84
Real Estate						979 16									979 16
Distributing Main	6 00		65 76	6 00	88 76	6 00	2 00	59 14		6 00	157 12	36 85	6 00	272 00	711 63
Lake Roland		86 73	60 00	88 41	18 00	8 92	73 75		11 26	52 30	6 68	41 50	90 00	82 00	622 55
Hampden Reservoir						5 00		14 00	35 00						54 00
Mount Royal "		10 00											15 00		25 00
Gunpowder Permanent Supply		26 00													26 00
Total	$9,973 06	$27,279 70	$85,585 73	$147,281 41	$44,191 28	$59,165 57	$32,912 85	$30,912 25	$31,905 65	$13,656 18	$16,788 54	$28,293 92	$11,058 18	$29,424 01	$568,428 33

Received from Sale of $886,600 (1894, 5 per ct.) Water Stock for Gunpowder Permanent Supply	886,600 00
" " Finance Commissioners for Interest Collected from Purchases of 1916 Stock	13,090 69
" Appropriation for Fire Plugs and Pumps	1,000 00
" " for Fountains	875 00
" " for Fountain at Calvert Street Spring	700 00
Total Receipts for the Fiscal Year	$1,470,694 02

STATEMENT "F."

Disbursements of the Water Department for 14 *Months, or the Fiscal Year Ending December* 31*st*, 1877.

	1876. November.	December.	1877. January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
Gunpowder Permanent Supply..	$64,562 47	$59,804 10	$42,325 59	$58,768 27	$79,444 81	$66,480 76	$76,820 77	$81,324 76	$70,446 30	$97,239 90	$104,098 54	$86,755 39	$93,416 20	$115,945 11	$1,097,432 97
Distributing Main.....	3,103 34	2,095 87	430 69	766 41	3,024 07	1,253 87	2,214 22	2,968 94	3,148 10	4,862 88	4,957 89	2,242 20	2,437 02	2,992 06	36,497 56
Pump House.....	255 06	1,558 10	8 87	5,518 23	34 27	5,566 79	1,560 99	2,294 99	528 47	95 45	118 94	555 24	11,820 53	300 97	30,216 90
Lake Roland.....	1,094 84	2,291 80	137 93	20 32	402 73	1,244 01	1,493 23	3,589 26	2,459 68	2,520 55	3,724 67	5,137 47	3,047 24	2,009 98	29,173 51
Salaries Registrar's Department..	1,516 63	1,516 63	1,591 63	1,674 96	1,599 96	1,599 96	1,516 63	1,516 63	1,516 63	1,516 63	1,474 97	1,433 30	1,433 30	1,366 63	21,274 49
Real Estate.....	17 65	.....	71 50	11 36	832 00	1,650 00	23 50	3,000 62	275 02	1,027 46	2,046 37	5,943 41	.....	701 30	15,600 19
Plumbing Department.	788 11	761 10	479 92	495 22	892 91	720 46	786 40	1,558 22	791 94	1,382 94	954 80	812 70	1,194 50	760 39	12,379 61
Druid Lake.....	3,881 93	1,324 14	279 45	344 12	868 03	547 58	528 32	500 93	316 30	834 58	52 91	229 84	262 07	191 20	10,161 40
Salaries Engineer's Department..	708 33	708 33	708 33	708 33	708 33	708 33	708 33	708 33	708 33	693 66	633 33	858 33	783 33	772 49	10,116 11
Temporary Supply.....	135 00	135 00	213 45	145 37	155 39	135 00	136 50	140 25	153 45	171 70	5,128 07	714 41	339 22	263 71	7,966 52
Water Meters.....	449 35	416 23	248 26	207 17	457 57	402 98	309 57	723 85	604 23	604 55	522 90	354 50	235 68	265 57	5,802 41
Hampden Reservoir.....	.....	.....	.....	.....	.....	12 92	25 94	380 64	691 92	288 16	9 43	34 00	1,553 36	1,915 18	4,911 55
Repairs.....	297 41	501 26	425 60	552 62	314 96	207 48	214 64	224 32	174 70	218 46	261 61	247 12	270 66	322 91	4,233 75
Current Expenses.....	148 60	293 15	307 05	331 27	342 62	348 79	334 54	176 14	252 49	337 43	208 33	312 76	372 95	489 84	4,255 96
Fire Plugs.....	332 44	191 68	503 48	392 79	195 82	326 91	570 83	249 88	435 91	298 59	161 00	204 82	205 93	95 37	4,165 45
Pumps and Fountains.....	133 00	173 28	6 50	183 62	393 27	223 54	166 75	500 81	900 52	381 15	122 26	151 50	149 67	113 50	3,599 37
Tools and Fixtures.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8 20	1,632 92	1,482 80	3,123 92
Telegraph Line.....	.....	.....	.....	17 50	737 43	30 40	709 19	85 75	.....	22 00	770 00	.....	16 16	.....	2,388 43
Stationery and Printing.....	264 35	1 20	2 43	.....	28 25	50 00	125 20	40 95	31 78	39 48	14 40	171 00	.....	360 37	1,129 41
Returned Money.....	62 54	40 04	62 56	187 46	317 16	119 13	112 40	98 79	79 74	37 47	51 61	13 95	74 01	42 85	1,299 71
Gunpowder Real Estate.....	106 80	131 80	26 80	26 80	25 00	28 60	26 80	26 80	26 80	26 80	26 80	26 80	106 80	131 80	745 20
Sustaining Main.....	221 53	.....	.....	52 36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	273 89
Mount Royal Reservoir.....	71 50	....	17 85	9 00	9 50	30 50	49 18	50 80	11 00	7 12	.....	30 74	5 00	.....	292 19
High Service Reservoir.....	.....	.....	.....	.....	4 50	20 00	.....	.....	.....	22 75	.....	.....	.....	.....	47 25
Conduit.....	.....	.....	....	22 00	.....	14 92	.....	.....	.....	.....	... .	.....	.....	.....	36 92
Total.....	$78,150 88	$71,943 71	$47,847 89	$70,435 18	$90,788 58	$81,722 93	$88,433 93	$100,161 66	$83,553 31	$112,629 51	$125,338 83	$106,237 68	$119,356 55	$130,524 03	$1,307,124 67

Paid 18 Months' Interest on $5,000,000 Water Stock.....	462,290 36
Total Disbursements for the Fiscal Year.....	$1,769,415 03

STATEMENT G.

New Supplies for 14 *months, or the fiscal year ending December* 31, 1877.

378	Houses,	at $5 00	$1,890 00	
352	"	" 7 50	2,640 00	
483	"	" 9 00.....	4,347 00	
232	"	" 12 00.....	2,784 00	
33	"	" 14 00.....	462 00	
22	Warehouses,	" 6 00.....	132 00	
14	"	" 8 00.....	112 00	
36	"	" 10 00.....	360 00	
				$12,727 00
630	Baths,	at $2 00.....	$1,260 00	
524	Water Closets,	" 2 00.....	1,048 00	
226	Hose,	" 3 00.....	678 00	
219	Horses,	" 1 50.....	328 50	
48	Carriages,	" 1 50.....	72 00	
20	Urinals,	" 1 50.....	30 00	
8	Cows,	" 1 00.....	8 00	
				$3,424 50
		SPECIALS.		
27	Bars,	at $3 00.. ...	81 00	
12	"	" 5 00.....	60 00	
9	Barbers,	" 3 00.....	27 00	
	Amounts carried forward.....		$168 00	$16,151 50

STATEMENT G.—Continued.

	Amounts brought forward.....		$168 00	$16,151 50
1	Warehouse,	at	25 00	
9	Extra Families,	" 2 00.....	18 00	
4	Drugs,	" 3 00	12 00	
4	Schools,	" 12 00.....	48 00	
1	Oyster Packer,	"	10 00	
1	"	"	15 00	
1	"	"	25 00	
1	Butchery,	"	5 00	
7	Butcheries,	" $10 00 ..	70 00	
1	Butchery,	"	15 00	
5	Errick Pumps,	" 6 00.....	30 00	
1	Laundry,	"	10 00	
7	Blacksmiths,	" 2 50	17 50	
2	"	" 5 00.. ...	10 00	
3	Fountains,	" 10 00.....	30 00	
1	"	"	35 00	
1	Rectifier,	"	20 00	
1	"	"	25 00	
2	Bottlers,	" 5 00.....	10 00	
3	"	" 10 00	30 00	
1	"	"	20 00	
8	Basins,	" 2 00	16 00	
1	Carpenter,	"	6 00	
1	"	"	10 60	
	Amounts carried forward.....		$680 50	$16,151 50

STATEMENT G.—Continued.

	Amounts brought forward.....			$680	50	$16,151 50
1	Manufacturer,	at	.....	20	00	
1	Fish House,	"	.....	10	00	
5	Fire Hose,	"	10 00.....	50	00	
2	Dairies,	"	5 00.....	10	00	
2	Churches,	"	10 00.....	20	00	
1	Church,	"	.....	14	00	
1	Heater,	"	.....	30	00	
1	Vinegar Factory,	"	.....	40	00	
1	Shoe Factory,	"	.....	10	00	
1	Increase of Rent,	"	.....	2	00	
1	Public Bath,	"	.....	10	00	
1	Ice Cream Ma'f'y,	"	.....	5	00	
1	Guano Manuf'y,	"	.....	5	00	
1	Dyer,	"	.....	5	00	
1	Packer,	"	.....	10	00	
1	Plater,	"	.....	5	00	
1	Can Factory,	"	.....	10	00	
1	Special,	"	.....	25	00	
4	2 H. P. Boilers,	"	10 00.....	40	00	
1	3 "	"	.....	15	00	
1	4 "	"	.....	32	00	
7	4 "	"	20 00.....	140	00	
1	4½ "	"	.....	22	50	
2	5 "	"	25 00.....	50	00	
	Amounts carried forward.....			$1,261	00	$16,151 50

STATEMENT G.—Concluded.

		Amounts brought forward.....			$1,261 00	$16,151 50
3	6	"	at	30 00.....	90 00	
5	8	"	"	40 00.....	200 00	
3	10	"	"	50 00.....	150 00	
1	12	"	"	.....	60 00	
8	13	"	"	65 00.....	520 00	
5	15	"	"	75 00.....	375 00	
1	20	"	"	.....	100 00	
1	25	"	"	.....	125 00	
2	30	"	"	150 00.....	300 00	
1	37½	"	"	.....	187 50	
						3,368 50
		Producing a yearly revenue of.....				19,520 00
		Supplies for building water only, yielding a revenue for this year of.....				205 50
		Total.....				$19,725 50

STATEMENT H.

Abatements condensed for fourteen months, or the fiscal year ending December 31st, 1877.

	1874.		1875.		1876.		1877.	
	No.		No.		No.		No.	
Vacancy and stoppage	59	$682 14	104	$1,113 43	311	$2,762 30	182	$1,204 37
Specials	20	269 28	38	513 09	76	954 33	113	948 54
Horses	27	40 50	57	85 50	96	142 83	163	244 25
Carriages	16	24 00	18	27 00	32	46 75	33	49 25
Hose	13	36 50	22	65 50	62	184 50	71	211 75
Baths	20	39 00	29	57 00	52	101 00	56	111 00
Water closets	2	4 00	5	10 00	11	20 66	12	23 50
Cows	2	2 00	4	4 00	23	23 00	18	18 00
Rents duplicated and torn down	92	1,135 38	121	1,607 27	140	2,079 49	149	2,400 82
Rents reduced	14	39 00	17	56 50	22	66 00	35	120 00
Building water	2	103 50	....	.....	10	246 00	1	18 75
Extra families	4	8 00	4	8 00	7	14 00	5	9 00
	271	$2,383 30	419	$3,547 29	842	$6,640 86	838	$5,359 23

Total amount of abatements for the fiscal year ending December 31st, 1877..... $17,930 68

STATEMENT J.

Estimated Revenue for 1878.

10,481	houses	at $ 5 00.....	$52,405 00		
12,659	"	" 7 50.....	94,942 50		
12,484	"	" 9 00.....	112,356 00		
5,197	"	" 12 00.....	62,364 00		
2,886	"	" 14 00.....	40,404 00		
264	warehouses	" 6 00.....	1,584 00		
402	"	" 8 00.....	3,216 00		
953	"	" 10 00.....	9,530 00		
45,326				$376,801	50
9,242	baths	" 2 00.....	18,484 00		
5,212	water closets	" 2 00.....	10,424 00		
2,941	hose	" 3 00.....	8,823 00		
4,663	horses	" 1 50.....	6,994 50		
1,168	carriages	" 1 50.....	1,752 00		
609	cows	" 1 00.....	609 00		
220	extra families	" 2 00.....	440 00		
				$47,526	50
3,268	special supplies and meters			78,557	50
				$502,885	50

STATEMENT K.

Balances Remaining on the Books of the Department December 31st, 1877.

Water Rents,	1877	$135,518 23
"	1876	26,314 09
"	1875	7,576 82
"	1874	2,308 98
Work Bills		5,018 86
		$176,736 98

SUMMARY OF RECEIPTS.

	From November 1, 1876, to October 31, 1877, or 12 months.	From November 1, 1876, to December 31, 1877, or 14 months.
Received from water rents 1878.	.....	$1,539 50
" " " 1877.	$245,509 49	272,955 33
" " " 1876.	165,147 72	169,673 89
" " " 1875.	19,630 81	21,656 77
" " " 1874.	9,872 86	11,190 28
" " " 1873.	3,953 95	4,372 45
" from meter rents.....	60,513 25	60,942 49
	$504,628 08	$542,330 71
Less discount on 1877 and 1878 rents.....	21,016 27	21,170 22
Net amount from water rents..	$483,611 81	$521,160 49
Received from plumbing department.....	14,149 97	15,496 72
Received from interest on 1876, 1875, 1874 and 1873 rents...	5,570 41	6,240 72
Received from Gunpowder real estate.....	1,676 34	1,941 84
Received from real estate.....	979 16	979 16
" distributing main.	433 63	711 63
" Lake Roland.....	450 55	622 55
" Hampden Reservoir.....	54 00	54 00
" Mt. Royal Reservoir.....	10 00	25 00
Amount carried forward.. ...	$506,935 87	$547,232 11

SUMMARY OF RECEIPTS.—Concluded.

	From November 1, 1876, to October 31, 1877, or 12 months.	From November 1, 1876, to December 31, 1877, or 14 months.
Amount brought forward.....	$506,935 87	$547,232 11
Received from Gunpowder permanent supply.	26 00	26 00
" interest on stock sold.....		13,090 69
Net collections.....	$506,961 87	$560,348 80
Add amount allowed for discount on 1877 and 1878 rents.	21,016 27	21,170 22
Amount of revenue collected...	$527,978 14	$581,519 02
Received from sale of 1894, 5 per cent. water stock for Gunpowder permanent supply.....	811,600 00	886,600 00
Received from appropriation for fire plugs and pumps.....	.....	1,000 00
Received from appropriation for drinking fountains	.....	875 00
Received from appropriation for Calvert street spring..	.....	700 00
Gross receipts.....	$1,339,578 14	$1,470,694 02

SUMMARY OF EXPENSES.

	From November 1, 1876, to October 31, 1877, or 12 months.	From November 1, 1876, to December 31, 1877, or 14 months.
Plumbing department	$10,424 72	$12,379 61
Repairs	3,614 18	4,233 75
Druid Lake	9,708 13	10,161 40
Lake Roland	7,648 03	8,431 97
Pump house	7,295 40	8,616 90
High Service Reservoir	47 25	47 25
Hampden "	1,443 01	4,911 55
Mt. Royal "	287 19	292 19
Water meters	2,972 05	3,473 30
Salaries Registrar's department	18,474 56	21,274 49
" Engineer's "	8,560 29	10,116 11
Current Expenses	3,393 17	4 255 96
Temporary supply	7,363 59	7,966 52
Printing and stationery	769 04	1,129 41
Conduit	36 92	36 92
Working expenses	$82,063 53	$97,327 33
Paid 15 month's interest on $5,000,000 water stock	399,790 36	
Paid 18 month's interest on $5,000,000 water stock		462,290 36
Real estate	14,898 89	15,600 19
Gunpowder real estate	506 60	745 20
Returned money	1,182 85	1,299 71
Gunpowder permanent supply	888,071 66	1,097,432 97
Lake Roland (for dredging)	16,468 26	20,741 54
Amount brought forward	$1,402,982 15	$1,695,437 30

SUMMARY OF EXPENSES.—Concluded.

	From November 1, 1876, to October 31, 1877, or 12 months.	From November 1, 1876, to December 31, 1877, or 14 months.
Amount brought forward....	$1,402,982 15	$1,695,437 30
Distributing main.....	31 068 48	36,497 56
Pump house (for new machinery).....	10,800 00	21,600 00
Tools and fixtures.....	8 20	3,123 92
Telegraph line.....	2 372 27	2,388 43
Water meters (new).....	2,329 11	2,329 11
Fire plugs.....	3,864 15	4,165 45
Pumps and fountains.....	3,336 20	3,599 37
Sustaining mains.....	273 89	273 89
Total disbursements.....	$1,457,034 45	$1,769,415 03

Water Engineer's Report.

REPORT.

OFFICE OF THE WATER ENGINEER,

December 31, 1877.

To the Honorable the President and

Members of the Water Board:

GENTLEMEN:

In accordance with the requirements of the ordinance, the Water Engineer is to report in full the condition of the works under his charge, the amount of expenses during the year, and all information required by the Water Board. I respectfully report as follows:

November 1, 1876.—The present report embraces fourteen months, in consequence of the fiscal year being changed to end on the 31st of December.

CITY DEPARTMENT.

The sustaining mains laid in 1876 gave very satisfactory results as far as they went, their location being confined mostly to the low service, but enabled the department to make a change of several hundred supplies, which were heretofore on the middle service. There are still other locations which have been affected by the increased demand upon the original pipes, which ere long will require attention.

Complaints, which have foundation, have been made to the department about scant supply of water on Linden avenue. I have taken the pressure on the 20-inch pipe from which this location is served, showing to what extent it is affected in consequence of excessive draw and inefficient pipe capacity. I also show at different points along the line the varying pressure, from the want of being sustained, by the following table, taken from fire plugs July 5th, 1877, between the hours of 9 and 11 o'clock A. M.:

Jordan Alley, in rear of south-west side of Linden Avenue—6-inch pipe.

NAMES OF STREETS.	Elevations.	Pressure per square inch.	Pressure—water at rest.
Mosher	137.1	25 lbs.	33.8 lbs. per sq. in.
Townsend	148.5	17 "	28.4 " " "
Dolphin	148.2	15 "	28.5 " " "
Hoffman	131.6	21 "	36.7 " " "

Mason Alley, in rear of north-east side of Linden Avenue—4-inch pipe.

NAMES OF STREETS.	Elevations.	Pressure per square inch.	Pressure—water at rest.
Mosher	133.7	22½ lbs.	34.8 lbs. per sq. in.
Townsend	153.2	11 "	26.3 " " "
Dolphin	132.8	20 "	35.2 " " "
Hoffman	135.8	17 "	33.9 " " "
McMechen	126.7	25 "	37.8 " " "
Lanvale	149.4	14 "	28.0 " " "

The above supplies are received from an elevation of 214 feet.

The excessive draw is very perceptibly seen from the above showing; notice, for instance, the location of Mason alley and McMechen street, (off the 20-inch pipe). (It will be understood that said pipe is serving east as far as east side of St. Paul and Courtland streets. When the above pressure was taken this supply embraced Calvert street, between Saratoga and Eager; but by order of the Board in November, a 6-inch pipe was laid in Gravel alley, which changed the supply as above.) The water from fire plug shows a pressure of 25 lbs. per square inch, which represents a head of 57.6 feet. The elevation of the ground at this point is 126.7 feet, and at this date the water in Druid Lake, from whence the supply is received, stood at 214 feet elevation, which represents a head of water 87.3 feet, equal to 37.8 lbs. per square inch. There were two connections made on the above line, with the view of giving better supply, but the excessive draw upon the principal main will not afford improvement. If, then, it is determined to furnish a supply that will give better results from the same reservoir, we must look to an additional pipe line connecting to the 30-inch pipe at Mount Royal avenue and North avenue, thence along Wilson street and Linden avenue, with a sustaining main.

I would recommend that some regulations be adopted for the preservation of the water pipes when exposed in the construction of sewers. The City Commissioner's Department contract for the construction of sewers, but make no provision for the cost attending the removal or care of the water pipes. I refer to the matter so that some action may be taken to settle the question of cost to the proper department.

In order to make betterments and improve supplies, the following work was done by direction of the Board:

To break up dead-ends, and make connections with the terminus of pipes to put the water on circulation—

90 feet of 2-inch, 6,287½ feet 3-inch, and 1,832 feet 4-inch, cost	$4,209 35
To better supply Calvert Sugar House, 2,125 feet 6-inch, cost	1,463 43
There was laid, in order to extend high service, to serve those who complained of slack supply from the middle service, 1,162½ feet of 4-inch pipe, cock and connection	615 86
There was also laid, to furnish sustaining main for Linden avenue, 962½ feet of 3, 4 and 6-inch pipe, cocks and connections	760 97
The change to high from the middle service was 163 houses:	
Chase street, between Charles and Hargrove alley, 650 feet of 6-inch pipe	565 45
Charles and Balderson streets, 650 feet of 4-inch, and 100 feet 6-inch pipe	349 60
For dredging Falls opposite Granby street, as per contract with Capt. Constantine, 4,450 cubic yards at 37 cts	1,646 50
For riggers, scows, &c., as per bill of Williams & Lannan	235 00
Piles and capping, B. Glenn	95 00
75 feet of 10-inch, and 137 feet of 12-inch pipe and swivel joint designed by me to suit the profile of the bottom, also two 10-inch cocks and connections, to flush pipes in the Falls, and the line dropped into water 16 feet deep	1,034 49

The above connection, which is a very important one to keep up a central circulation, was broken by a dredging machine

during the high water of October, 1869, and, in consequence of work going on along the Falls, could not be restored until the present.

CITY'S CONSUMPTION.

The city's consumption of water was taken on the 15th, 16th, 17th and 18th of September. The thermometer was showing 74°; hence but little water was being used to cool the atmosphere. The rains had laid the dust, which obviated the necessity of using street hose, and I found the consumption per 24 hours to average 14,877,250 gallons.

CALVERT STREET SPRING.

By special appropriation the department reconstructed the Calvert Street Spring, the natural flow having become foul. The city water has been arranged to flow from two wall fountains, after having received the temperature of the spring water. The foul water passes off to waste by its usual channel under a cast-iron flooring, out of view.

MOUNT ROYAL RESERVOIR

Is located on the city boundary, 3,625 feet distant from Druid Lake. It has a water surface of 4 acres, and at said surface is 150 feet above tide. Its usual depth of water is 20 feet, and its capacity is 30,031,654 gallons. The fencing which encloses these works is in part defective, but may, with occasional repairs, do for another year.

The keeper's house has had some slight repairs put upon the masonry. The property is in good condition.

DRUID LAKE

Is located in the Park, and equally distant between Hampden and Mount Royal reservoirs. Its water surface comprises 53 acres, and its capacity is 493,000,000 gallons, 429,000,000 being available. Its maximum depth is 65 feet, and its minimum 20 feet. The water surface in this lake is designed to be the same elevation as that at Hampden, from which it is supplied.

It has been a matter of some anxiety to maintain those elevations equal. The original design, when the works were constructed, was to supply the city direct from Hampden reservoir, where the conduit from Lake Roland terminates. But in order to provide greater storage, also purity of water, particularly from the effect of rain-storms, Druid Lake was constructed with its capacity nine times greater than Hampden. The two works were then connected by two 30-inch pipes. When the high service works were constructed an additional 30-inch pipe was laid, connecting with an unused 30-inch pipe that had been provided for such an emergency, in order to serve the pumps, and also to aid in keeping up the head of water in Druid Lake to the same elevation as Hampden. It will, therefore, be observed that the pipe-ends at each works are about the same elevation, and are expected to maintain the same levels of water. It will, therefore, be understood that there is no head to the discharge—only the difference of levels.

The difference of area of conduit that supplies Hampden reservoir from Lake Roland, and the three 30-inch pipes that connect Hampden and Druid Lake, is equal to a pipe 42⅝ inches internal diameter, the conduit having the excess of capacity; add to which, also, a head of water of eight feet at Lake Roland on the conduit, and against the pipe-lines a draw

of about 3,000,000 gallons in 24 hours for high service. We therefore, in order to give additional aid to Druid Lake, have one more 30-inch connection that can be utilized, as specified in the preceding pipe-lines.

The water in Druid Lake has been unusually low the past year, in consequence of increased consumption, turbid water, and the pumps drawing their supply from the same, when Hampden was in bad condition. Fortunately, however, the turbid water from Hampden, when mixed with the great volume of water in Druid Lake, did it very little harm, in fact it could barely be observed in the city's supply.

There has been paved around the lake road 7,637 lineal feet of gutter: also, 3,223 square feet at junction of roads, and 374 panels of railing erected and painted on outside of lake road.

The masonry at stop-house and the engineer's cottage was pointed. There was three new flights of steps erected on slopes, and the care of roads and slopes attended to. This property is now in good condition.

HIGH SERVICE PUMP-HOUSE.

The engine house is located on the north side of Druid Lake. The machinery consists of one set of compound engines and duplex pumps, operating since June, 1874, having a capacity of 3,000,000 gallons per 24 hours. It became evident last year that the duty performed by this machine, and the increased consumption of water in the district to be served, required duplicate machinery. The Board contracted in October last with H. R. Worthington to duplicate the machinery. The machinery arrived in March, was put in operation and tested in May, and formally received from the contractor in November. The first machinery had been operated over three years without a dollar's outlay for repairs, excepting a trifling expense

for spiral springs for pump valves. I, however, deemed it advisable, after starting the new pumps, to make an internal examination, with the view to repairs, which I found to be very light. The masonry of stack and engine-house, which was completed in very cold weather, had become defective in the joints, and in order to reach the stack joints a scaffolding 100 feet high had to be erected. The galvanized iron finish on top was also repaired and painted. A gas machine of the McAvoy design, also a vault-house was erected. Gas pipes and fixtures were run through the building, and are now in service furnishing light for the same.

The new engine and pumps have been painted; also the old touched up, and the house throughout put in first-class condition. The duplicate pumps have been operated since started in May, 24 days, 4 hours and 25 minutes, and have discharged into the reservoir 83,246,394 gallons of water. There has been purchased 1,112$\frac{18}{40}$ tons of coal, and there remained stock on hand from last year 35 tons. The consumption of coal has been 862$\frac{32}{40}$ tons, leaving a stock on hand this year of 285$\frac{18}{40}$ tons. New set of pumps operated 24 days, 4 hours and 25 minutes; old set of pumps operated 179 days, 12 hours and 45 minutes.

The duty performed will be found in the following table:

Consumption of coal in pounds.	Height the water is pumped in feet.	Gallons of water pumped.	Millions pounds raised one foot high with 100 lbs. of coal.	Gallons of water pumped with 100 lbs. of coal.	Gallons of water pumped with 1 pound of coal.	Reduced to a common standard of 100 feet high.
1,931,200	144	690,207,023	42,870,605	35,739	357.39	51,464

I have in former reports credited the pumps with a duty of 133 feet elevation, whereas it should have been 144 feet.

HIGH SERVICE RESERVOIR

Is located in Druid Hill Park, a quarter of a mile north-west of the mansion. Its elevation is 350 feet above tide, and 130 feet above the maximum level of Druid Lake. At high water mark it is 501 feet diameter; its water surface when full is 4 a., 2 r. and 4 p. The extreme depth of water is 20 feet, and its capacity is 26,241,116 gallons.

The water is supplied to this reservoir in its passage from Hampden reservoir to Druid Lake, or when the water is turbid at Hampden, it is taken from Druid Lake and forced, by pumping through a 20-inch main 6,100 feet long, to the reservoir. The elevation of the reservoir above the pumps is 144 feet. There is a 16-inch pipe connected to the force main, thence to Druid Lake, where it is turned up vertically, and reduced to a pipe 6 inches diameter. This pipe forms the fountain, and is under a head of 133 feet; it can be reduced at pleasure with the following results:

2-inch	vertical	column	ascends	115	feet	high.
3	"	"	"	"	125	"	"
4	"	"	"	"	113	"	"
6	"	"	"	"	75	"	"

By drop of reservoir we find, exclusive of the city's draw, when operating the 2-inch fountain, to be 39,852 gallons per hour, and the 4-inch 208,528 gallons per hour. Therefore, from May to November the

2-inch fountain operated	$81\frac{4}{60}$	hours.....	3,257,901 gallons
4 " " "	$283\frac{30}{60}$	"	59,187,128 "
Total pumped water discharged by fountain,			62,445,029 "

The screen over the city supply mains is arranged in fixed metal panels. The supply was checked twice the past season

by leaves clogging the screen. It may be advisable to have an auxiliary shifting screen, if in the future there is obstruction occasioned by the present arrangement.

The usual care and attention has been paid to the slopes in grass-cutting, and they are in good condition.

PIPE LINES BETWEEN HAMPDEN AND DRUID LAKE.

There are three 30-inch pipe lines, two along the N. C. R. R. tracks, and one through the park. The two works are 3,000 feet apart. The latter pipe passes through the engine-house, in order to serve the pumps for high service. When the water is very cloudy in Hampden reservoir, this pipe is used only to supply the pumps from Druid Lake. This very seriously affects keeping up the water in Druid Lake to its proper height, and has induced the Board to add another 30-inch line, connecting with a 30-inch drain pipe at Hampden, keeping in view, however, the facilities to drain. There has been but one repair, a leaking joint, on those lines the past year.

HAMPDEN RESERVOIR

Is located near the Falls Road, three miles from Baltimore. The reservoir is a semi-circle, containing an area of seven acres, and a capacity, when there is twenty feet depth of water in it, (usual depth,) of 46,365,875 gallons. Contract was made by the Water Board in September, 1877, to erect a wrought-iron railing around the basin, in lieu of the decayed wooden fence that required renewing, for $1.20 per lineal foot. The whole line was 2,440 feet, 9½ inches long, and it has been completed satisfactorily. Between the inside of fencing and rip-rapping there is a margin of four feet, which has been dressed with 150 loads of top soil, and then sodded. There have also

been spread on the walk or roadway 200 loads of gravel, and on the outside slopes 33 loads of manure. There have been 391 feet of 12-inch, and 1,054 feet of 8-inch terra cotta pipe laid for drainage; also, 6,000 bricks for traps, and 1,050 feet of gutter paving. Low railings have been erected at the east and west entrances to the reservoir grounds along the paths, also railings on the two slope steps. This property is in excellent condition.

CONDUIT,

From Lake Roland to Hampden reservoir, is $3\frac{3}{5}\frac{1}{2}\frac{6}{8}\frac{0}{0}$ miles long. It is of elliptic form, containing an area of $24\frac{3}{4}$ square feet, and its capacity is 3,750,000 gallons. It is always desirable to make an internal inspection of this work in the early fall, but the opportunity to do so depends on the quality and quantity of water on storage, and we were not able to make the inspection then, but adopted the plan of flushing the conduit every month during the summer and fall months, at the conduit chamber in gate-house at Lake Roland, also at Harper's waste weir, on four occasions permitting the flow very copiously for six hours. I found this operation to give very satisfactory results, as the water flowing constantly in one direction usually creates a coating; if the flow is reversed it removes the deposit. Externally the conduit is examined every week by the keeper at Lake Roland as far as Harper's, and the keeper at Hampden from reservoir to Harper's. The culverts, nine in number, require labor occasionally to keep them open, (upon which there were 18 days' labor during the past year,) also to repair the fencing. I deem it advisable to recommend new fencing along the pike, and also cross-obstructions, to prevent the cattle from reaching the embankment over conduit, between Cross Keys and Harper's waste weir. The masonry of waste gate, house at Harper's was pointed. There has been one wash-

occasioned by the rain near Union avenue, which reached the brick-work, but did no harm beyond the labor expended in restoring the earth.

The remarkable mild weather in December, 1877, together with the condition of the water, enabled us to let the water out of the conduit, in order to clean it. I therefore, with Mr. Martin, entered the conduit at Hampden reservoir, and made a careful internal inspection the whole distance to Lake Roland. We found it remarkably free from collections or adhesion of solids, there being but the slightest coating, which a gang of men with brooms removed in thirty hours. We found the structure, which has been in service seventeen years, in a most remarkable state of preservation. Whilst the water was out of the reservoir a finish was made on the connection to the gate in front of screen in the gate-house.

LAKE ROLAND.

This lake, situated seven miles from Baltimore, had, when completed, a storage capacity of 400,000,000 gallons. The heavy rains carry great quantities of earth into it from the adjacent lands, and for two seasons a contract has existed for its removal by dredging. There have been thus far 90,725¾ cubic yards removed, and placed on the city's land bordering the lake, and during the year, when water was low, there were removed by horses and carts 5,051 cubic yards. I cannot see from the elevations of the lands bordering Jones' Falls and Roland Run, (the two principal tributaries,) that it is practicable to provide catch dams, in order to check the sediment, but believe it might be worthy of consideration on Towsontown branch.

The lake was full and wasting over the dam, except in the months of June, July, August and September. For eight

months out of the fourteen the water has been cloudy, and at times very turbid. On such occasions the city's supply was not permitted to flow through the conduit until the condition of the storage at Hampden made it advisable.

The masonry of gate-house has had the joints pointed; a new fence, similar to the outer one at Druid Lake, has been erected from the steps near the bridge to the keeper's house. The masonry for culvert over the branch near the keeper's house was completed, and the roads and slopes graded, a new fountain erected, also an ice-house. The masonry at Towsontown culvert was completed. The grounds have been drained with terra cotta pipe, and the usual whitewashing of fencing and grass-cutting has been done. This property is now in good condition, but the keeper's house, but with two rooms on the first floor, one of which is very limited, should have an additional room.

THE TEMPORARY WORKS

Are located near Meredith's Ford, on the Dulany Valley Road, eleven miles from Baltimore. There are two pairs of H. R. Worthington's compound engines, each pair being 175 horse-power. Connected to each pair are duplex pumps, each with a capacity of pumping 5,000,000 gallons of water every twenty-four hours. From these works the water is pumped over a summit of 205 feet, through a 36-inch diameter pipe line 3½ miles long. The water is discharged into a basin at Lutherville, from which it flows along Roland Run two miles and empties into Lake Roland.

The usual force at these works, unless pumping for city's supply, consists of an engineer and one man, whose duties are to take care of the city property, including the pipe line to Lutherville.

The engineer makes monthly reports of the state of the water in the Gunpowder, also all labor that is performed at the works. It is usual to strip the machinery during the winter months, and through the other months of the year, (unless pumping for city's supply,) to operate them occasionally for a short time. The construction of this machinery was completed in 1873, but its services were never required until the past summer, when in August a falling off in the city's usual supply occurred, and it became evident that farther aid must come from the Gunpowder. Therefore, on the 9th of August, one pump was started, the stream being too low to work both effectively.

Upon advising with the Board, it was determined to erect a temporary obstruction, and thereby increase the volume of water for both pumps. Boulders and earth were placed across the stream, and in a few days both pumps were operating satisfactorily. From the date of starting, August 9th, until stopping, September 8th, the pumps operated 617 hours, consuming 448 tons of coal. The aggregate number of gallons discharged into Lake Roland was 202,587,587. There were consumed for each twenty-four hours 17.42 tons of coal, and there remain on storage 209½ tons.

The following table will give the duty performed:

Consumption of coal in pounds.	Height the water is pumped in feet.	Gallons of water pumped.	Millions pounds raised one foot high with 100 lbs. of coal.	Gallons of water pumped with 100 lbs. of coal.	Gallons of water pumped with 1 pound of coal.	Reduced to a common standard of 140 feet high.
1,003,520	205	202,587,587	34,473,522	20,187	201.87	41.383

The duty shown, when compared with that at high service, is accounted for by an inferior quality of some of the coal furnished. As a farther precaution for the future, additional shedding has been erected for storing 300 tons of coal.

New supplies from October 31st, 1876, to December 31st, 1877.

Aggregate	$19,725 50

Expenditures of the Water Engineer's Department from November 1st, 1876, to January 1st, 1878.

Distributing Main	$36,497 56
Plumbing Department	12,379 61
Repairs	4,233 75
Water Meters	5,802 41
Pump-House	30,216 90
Druid Lake	10,161 40
High Service Reservoir	47 25
Hampden "	4,911 51
Mount Royal "	292 19
Salaries Engineer's Department	10,116 11
Temporary Supply	7,966 52
Fire Plugs	4,165 45
Pumps and Fountains	3,599 37
Tools and Fixtures	3,123 92
Telegraph Line	2,388 43
Sustaining Main	273 89
Conduit	36 92

Bills delivered to Registrar for work and material.

Plumbing Department	$16,366 21
Distributing Main	290 47
For hay the Registrar has received	569 48
" scrap cast-iron and brass	673 63
" ice at Lake Roland	132 07
" stone	3 84

It might be observed that the hay crop is only the collection of grass, necessary to keep the grounds in order. We have also fed five head of stock, and furnished four tons of hay to the permanent line works.

There has been laid for distributing mains... 41,782 feet of pipe.
" " " " " supplies..... 14,803 " "

Total in feet..... 56,585 " "
Aggregate in miles..... $10\frac{47}{52}\frac{85}{80}$

Whole length of distrtbuting main laid in the city up to January 1st, 1878.

$262\frac{33}{52}\frac{65}{80}$ miles.

There has been paved by the department—

Square feet over pipes...	82,951 @ 3 cts.....	$2,488	53
" " in holes.....	72,510 @ 3 cts.....	2,175	30
Fire Plugs.....	288 @ $1 each.....	288	00
Pumps.....	58 @ $3 "	174	00
Fountains.....	24 @ $1 "	24	00
At city prices.....		$5,149	83
Actual cost.....		4,257	09
		$892	74

LEAKS AND REPAIRS.

Number of main leaks repaired from October 31st, 1876, to December 31st, 1877.....	627
Number of main stops repaired from October 31st, 1876, to December 31st, 1877.....	227
Number of hydrant and service pipes turned off for leaks..	1,161
Number of ferrules drawn for leaks.....	170
Number of fire plugs repaired.....	170

ORDERS FROM REGISTRAR.

Supplies stopped for water-rent	1,645
Supplies turned on	850
Ferrules drawn	101
Ferrules returned	47
Persons who were called upon, and promised to pay	991

METERS.

There are in operation the following:

¾-inch	110
1 "	146
1½ "	46
2 "	27
3 "	51
4 "	3

PUMPS.

Repaired	240
Removed	19
Erected	5

FOUNTAINS.

Erected	6
Repaired	54

FIRE PLUGS.

The usual appropriation for the erection and care of fire plugs, pumps and fountains, was omitted in part the past year. There was $1,000 provided by the City Council, and the sum expended was $7,764 82.

Plugs erected from November 1st, 1876, to January 1st, 1878.

High and Hillen.
Madison avenue and Presstman.
Presstman and Dryden alley.
*Gay and Ensor.
Hoffman and Chester.
Hoffman and Charles.
*Eden, between Chase and Biddle.
*Caroline, between Chase and Biddle.
*Eden and Bank.
*Exeter and Fawn.
*Stiles and Bates alley.
*Dolphin and Jenkins alley.
*Park avenue and Hoffman.
*Eager and Greenmount avenue.
*Harrison and Baltimore.
*Harrison and Fayette.
Townsend and Harford avenue.
*Baltimore and Sharp.
*German and Charles.
*Calvert and Saratoga.
Oliver and Decker.
Decker, between North avenue and the bridge.
*Madison and Charles.
*No. 5 Engine House, Ann street.
Townsend and Fulton.
Fulton and Edmondson avenue.
*Chew and Aisquith.
Granby and East Falls avenue.

*To replace old Plugs.

*Bank and Broadway.
*Calvert and Eager.
Mulberry and Hargrove alley.
Pleasant and Hargrove alley.
Centre and Hargrove alley.
Franklin and Hargrove alley.
Read and Hargrove alley.
*Wolf and Pratt.

PUBLIC FOUNTAINS IN THE CITY.

Fell's Point Market House.
Baltimore and Harrison streets.
Light and Conway streets.
Hollins street Market.
Lexington and Jasper streets.
Richmond and Garden streets.
Pratt and Gay streets.
Belair Market, Gay street.
Pratt street and Centre Market.
Pratt and Light streets.
Light and Lee streets.
Hanover Market.
Cross Street Market.
Baltimore and North streets.
Locust Point.
Light street and Fort avenue.
Madison Square.
Charles street and Boundary avenue.
Camden and Eutaw streets.
Pratt and South streets.

*To replace old Plugs.

Fort avenue and Burrow street.
Fremont and Burgundy alley.
McMechin and Oliver streets.
Aisquith and Harford avenue.
Light and Winder streets.
Leadenhall and West streets.
Greenmount avenue and Truxton street.
Broadway and Bank streets.
Thames and Caroline streets.

FOUNTAINS FOR MAN AND BEAST.

Eutaw and German streets.
Exchange Place.
Broadway and Thames street.
Canton avenue and Chester street.
Howard and Centre streets.
Fremont and Lombard streets.
Portland and Greene streets.
Eutaw and Cross streets.
President street and Eastern avenue.
Light and Poultney streets.
Charles and Lee streets.
Ensor and East streets.
Broadway and Chase street.
Greenmount avenue and Monument street.
Bond and Jefferson streets.
Pennsylvania avenue and Dolphin street.
Saratoga and Fremont streets.
Oregon and Saratoga streets.
Park avenue and Preston street.
Caroline street near Dock street.
Broadway and Lombard street.

Baltimore and Poppleton streets.
Hollins, Frederick avenue and Fulton street.
Light and Randall streets.
Pennsylvania avenue and Fremont street.
Calvert street and Court House.
Eastern avenue and Chester street.
*Eastern avenue and West Falls avenue.
*40 Philpot street.
*Baltimore street and Central avenue.
*Boston and Elliot streets.
*Franklin street and Pennsylvania avenue.
*Ridgely and Hamburg streets.

DISTRIBUTING MAIN.

Stock of material on hand and value of the same, December 31st, 1877..... $6,920 53

PLUMBING DEPARTMENT.

Stock of material on hand and value of the same, December 31st, 1877..... 695 44

METERS.

Stock of material on hand and value of the same, December 31st, 1877..... 1,667 95

I respectfully refer you to inventory submitted for each works, and the City Department.

Respectfully submitted,

JAMES CURRAN.

* Erected in 1877.

TABULAR STATEMENT.

Size and Number of Feet of Pipe, Stop Cocks, and Branches Laid in the City.

	1½ in.	2 in.	3 in.	4 in.	4½ in.	6 in.	8 in.	10 in.	12 in.	16 in.	18 in.	20 in.	30 in.	TOTAL OF PIPE.
No. of feet of pipe laid previous to purchase by the Water Co....	.....	13,203	95,411	31,876	72,462	60,704	10,040	14,330	12,209	26,168	4,627	8,588	14,203	363,821
Laid by Water Commissioners from July 1, 1855, to Dec. '57..	.....	1,909	14,720	28,362	.....	5,005	613	448	.....	.....	.....	9,716	.....	60,773
By Water Board 1858	.....	2,948	24,438	23,742	.....	8,692	144	.....	.....	.....	.....	.....	.....	59,964
" 1859	.....	638	22,972	40,367	.....	14,503	.....	6,300	108	.....	.....	.....	.....	84,888
" 1860	.....	.....	20,488	35,106	.....	22,134	.....	7,910	.....	.....	.....	14,889	1,428	101,955
" 1861	.....	276	8,317	15,432	.....	8,722	.....	5,017	.....	.....	.....	1,080	8,292	47,136
" 1862	.....	1,140	11,065	6,562	.....	560	.....	.....	.....	490	.....	6,599	51	26,467
" 1863	.....	2,729	12,223	5,696	.....	3,744	.....	4,560	.....	720	1,170	1,314	.....	32,156
" 1864	1,748	314	20,899	8,362	.....	6,981	.....	13,476	405	1,962	783	1,395	.....	56,325
" 1865	7,929	796	16,930	11,729	.....	3,204	.....	.....	.....	.....	.....	.....	.....	40,588
" 1866	2,903	4,413	15,813	10,864	.....	13,048	.....	.....	.....	.....	.....	.....	.....	47,041
" 1867	1,145	14,252	17,349	8,808	.....	6,491½	.....	9,372	.....	.....	.....	.....	.....	57,417
" 1868	1,642	4,475½	20,466½	14,759½	.....	2,012½	.....	.....	.....	.....	.....	.....	.....	43,356
" 1869	192	4,765	16,595	9,457½	.....	4,037	.....	.....	.....	.....	.....	.....	.....	35,047
" 1870	.....	8,502	11,372	10,886	.....	600	.....	.....	.....	.....	.....	.....	.....	31,360

From Jan. 1st to Oct. 31st, 1871	.....	6,895	11,863	13,205	.....	8,452	.....	.....	.....	.....	.....	.....	40,415
Oct. 31, 1871, to Oct. 31, 1872	78	6,871½	13,660½	12,479	.....	3,425	.....	.....	.....	.....	.....	.....	36,514
Oct. 31, 1872, to Oct. 31, 1873	.....	4,551	10,677½	8,032½	.....	5,405	.....	2,150	.....	3,400	.....	.....	34,216
Oct. 31, 1873, to Oct. 31, 1874	36	4,402	8,169	10,525	.....	10,959	5,795	8,537½	.....	.....	.....	.....	48,723½
Oct. 31, 1874, to Oct. 31, 1875	.....	3,542	7,544½	8,837½	.....	11,750	.....	4,362½	.....	.....	11,160	8,959½	56,156
Oct. 31, 1875, to Oct. 31, 1876	.....	1,982½	7,053½	15,383	.....	1,050	.....	3,212½	.....	5,175	202½	7,215½	41,274½
Oct. 31, 1876, to Dec. 31, 1877	.....	1,289	17,246½	15,571½	.....	7,462½	.....	75	137½	.....	.....	.....	41,782
	15,673	89,893½	405,273	346,042½	72,462	208,941½	16,592	79,750½	1285 9½	37,915	6,580	54943½	40,149	1,387,375

TABULAR STATEMENT—Continued.

	1½ inch.	2 inch.	3 inch.	4 inch.	4½ inch.	6 inch.	8 inch.	10 inch.	12 inch.	16 inch.	18 inch.	20 inch.	30 inch.	Total of Pipe.	Stops.
Stop Cocks by Water Company.....	....	12	61	94	....	55	9	8	8	9	4	8	2	....	270
" " Commissioners.....	....	9	8	8	....	3	....	....	....	....	....	2	....	....	29
By Water Board 1858.....	....	17	23	14	....	3	1	....	1	16	....	1	....	....	76
" 1859.....	....	15	30	54	....	16	....	7	....	....	....	....	....	....	122
" 1860.....	....	....	18	55	....	36	....	9	....	....	....	4	1	....	123
" 1861.....	....	7	7	24	....	8	....	3	....	....	....	....	5	....	54
" 1862.....	....	21	19	31	....	19	....	1	....	1	....	4	....	....	96
" 1863.....	....	8	20	28	....	2	....	2	....	....	....	1	....	....	61
" 1864.....	....	12	18	15	....	4	....	3	....	....	....	1	....	....	55
" 1865.....	....	24	13	6	....	2	....	....	....	....	....	....	....	....	45
" 1866.....	....	22	24	20	....	4	....	....	....	....	....	....	....	....	70
" 1867.....	....	46	22	5	...	5	....	3	....	....	....	....	....	....	81
" 1868.....	...	7	24	19	....	3	....	....	....	....	....	....	....	....	53
" 1869.....	....	....	7	18	....	3	....	....	....	....	....	....	....	....	28
" 1870.....	....	....	4	7	....	....	....	....	....	....	....	....	....	....	11
Jan. 1st, to Oct. 31st, 1871.....	....	5	11	25	....	5	....	....	....	....	....	....	....	....	46
Oct. 31st, 1871, to Oct. 31st, 1872.....	....	10	20	23	....	3	....	....	....	....	....	....	....	....	56
Oct. 31st, 1872, to Oct. 31st, 1873.....	....	7	14	25	....	12	....	2	....	2	....	....	....	....	62
Oct. 31st, 1873, to Oct. 31st, 1874.....	....	4	14	52	....	9	6	6	....	....	....	....	....	....	91
Oct. 31st, 1874, to Oct. 31st, 1875.....	....	3	5	31	....	10	...	6	....	1	....	6	2	....	64
Oct. 31st, 1875, to Oct. 31st, 1876.....	....	1	25	66	....	52	2	....	....	1	....	1	2	....	150
Oct. 31st, 1876, to Dec. 31st, 1877.....	....	5	69	50	....	13	....	2	....	....	....	....	....	....	139
	....	235	456	670	....	266	18	54	9	30	4	28	12	....	1,782

TABULAR STATEMENT—Concluded.

	1¼ inch.	2 inch.	3 inch.	4 inch.	4½ inch.	6 inch.	8 inch.	10 inch.	12 inch.	16 inch.	18 inch.	20 inch.	30 inch.	Total of Pipe.	Stops.	Branches.
Branches by Water Board 1858	....	3	78	98	....	33	2	....	....	1	....	....	....	....	....	215
" " 1859	....	....	53	134	....	75	....	32	2	....	....	....	....	....	....	296
" " 1860	....	....	68	108	....	149	....	29	....	....	....	52	2	....	....	408
" " 1861	....	....	26	50	....	33	....	19	....	....	....	6	34	....	....	168
" " 1862	....	5	25	30	....	4	....	1	....	....	....	16	....	....	....	81
" " 1863	....	3	29	19	....	9	....	7	....	2	1	5	....	....	....	75
" " 1864	3	3	40	21	....	9	1	47	....	5	4	4	....	....	....	137
" " 1865	20	....	47	20	....	15	....	....	....	....	....	....	....	....	....	102
" " 1866	3	....	30	24	....	16	....	....	....	....	....	....	....	....	....	73
" " 1867	1	29	46	26	....	7	....	21	....	....	....	....	....	....	....	130
" " 1868	1	6	38	43	....	12	....	....	....	....	....	....	....	....	....	100
" " 1869	....	5	54	32	....	6	....	2	....	....	....	....	....	....	....	99
" " 1870	....	9	27	39	....	1	....	....	....	....	....	....	....	....	....	76
Jan. 1st, to Oct. 31st, 1871	....	6	22	29	....	32	....	....	....	....	....	....	....	....	....	89
Oct. 31st, 1871, to Oct. 31st, 1872	....	3	35	39	....	10	....	....	....	....	....	....	....	....	....	87
Oct. 31st, 1872, to Oct. 31st, 1873	....	3	26	23	....	14	....	7	....	5	....	....	....	....	....	78
Oct. 31st, 1873, to Oct. 31st, 1874	....	4	17	53	....	16	22	30	....	1	....	....	....	....	....	143
Oct. 31st, 1874, to Oct. 31st, 1875	....	5	14	26	....	5	....	13	....	1	....	29	8	....	....	101
Oct. 31st, 1875, to Oct. 31st, 1876	....	4	21	90	....	12	....	14	....	21	....	....	9	....	....	171
Oct. 31st, 1876, to Dec. 31st, 1877	....	2	45	45	....	23	1	3	....	....	....	....	....	....	....	119
	28	90	741	949	....	481	26	225	2	36	5	112	53	....	....	2,748

Whole Length of Pipe Line in the City, October 31st, 1876	254 *Miles.*	4,023 *Feet.*
Pipe laid in the City from October 31st, 1876, to December 31st, 1877	7	4,622
Whole Length of Pipe Line in the City, December 31st, 1877	262	3,365
Net Cost of Pipe to date	$1,769,851 23	

Location, Size, Number of Feet, and Cost of Distributing Main, Laid from October 31st, 1876, to December 31st, 1877.

Streets in which Pipes are Laid.	Between what Streets.	Size in Inches.	Length in Feet.	Cost.
Baltimore, Broadway	Lombard and Bethel (Circulation)	3 4	400 100	$256 62
Raborg	Stricker and Gilmor	3	125	57 51
Mosher	Gilmor and Stricker	2 4	23 125	106 65
Mason Alley	Wilson and Laurens	4	200	93 32
Madison	Bond and Broadway	4	300	156 10
Chester	Hoffman and Oliver	4	200	104 09
10 foot alley, near Lanvale	Calhoun and Stricker	4	175	89 57
10 foot alley, near Gilmor	Patterson Avenue and Wilson	3	150	77 00
10 foot alley, near Harlem Ave	Gilmor and Vincent alley	4	50	31 64
Bethel	Lancaster and Shakespeare	3	50	21 66
10 foot alley, near Hanover	Fort Avenue and Clement	4	25	15 90
10 foot alley, near Stricker	Townsend and Mosher	3	400	158 81
Calhoun	Townsend and Mosher	4	150	84 28
Hampstead, Dallas	Mullikin, Orleans and Jefferson (Circulation)	3 4	1162½ 262½	766 88
10 ft. alley, rear Rope Walk alley	Randall and Heath	3	187½	73 60
Durham	Canton Avenue and Aliceanna	3	48	21 18

Eutaw	Monument and Madison	3	137½	54 25
Spring	Eastern Ave. and Bank (Circulation)	3	300	120 31
Presstman	Druid Hill Ave. and Madison Ave...	4	550	299 12
Mason alley	Wilson and Laurens	4	162½	77 30
Biddle	St. Paul and Lovegrove alley	3	112½	63 23
Dallas	Bank and Eastern Ave. (Circulation)	3	237½	106 47
Caroline	Bank and Eastern Avenue	4	212½	117 97
Baker	Gilmor and Mount	4	112½	72 04
Republican	Mosher and Tennant	4	75	43 24
Spring	Gough and Pratt (Circulation)	3	300	144 92
Caroline	Pratt and Gough "	3	150	62 20
Gilmor	Raborg and Baltimore	6	37½	30 86
O'Donnell	Potomac and Chesapeake	3	200	89 97
Bond	Pratt and Gough (Circulation)	4	212½	104 80
Bond	Gough and Bank "	4	87½	44 25
10 foot alley, rear Calhoun	Franklin and Edmondson Avenue...	3	87½	35 76
Bethel	Gough and Bank (Circulation)	4	375	195 69
Marshall	Heath and Barney	3	100	37 43
Bethel	Gough and Eastern Ave. (Circulation)	3	375	206 13
Hoffman	Charles and St. Paul	4	237½	132 67
Bethel	Canton Avenue and Eastern Avenue, (Circulation	3	200	72 88
Bethel	Aliceanna and Lancaster (Circulat'n)	3	237½	92 00
Temple	Baltimore and Fayette	3	87½	34 24
Lancaster	Caroline and Dallas (Circulation)	3	250	106 33
10 foot alley, rear Bond	John and Biddle	3	150	70 28
Baltimore	Howard and Liberty	4	187½	91 46

Location, Size, Number of Feet, and Cost of Distributing Main, Laid from October 31st, 1876, to December 31st, 1877.

Streets in which Pipes are Laid.	Between what Streets.	Size in Inches.	Length in Feet.	Cost.
Hoffman	Decker and Cathedral	4	212½	122 40
Dallas	Aliceanna and Lancaster (Circulat'n)	3	125	63 24
Aliceanna	Bond and Dallas (Circulation)	3	100	54 18
Baker Lane	Baker and Cumberland	4	25	13 85
Dolphin	Bolton and Mason alley	3	75	29 56
Register	Canton Ave. and Aliceanna (Circulation)	3	100	62 52
Register	Canton Avenue and Eastern Avenue, (Circulation)	3	212½	96 85
Register	Pratt and Lombard (Circulation)	3	100	53 49
10 foot alley, rear Broadway	Hampstead and Fayette (Circulation)	3	100	72 11
Hall alley	Fort Avenue and Clement	2	72	27 43
Register	Fayette and Hampstead (Circulation)	4	212½	123 62
Parkin	Columbia and St. Peter	4	120	71 24
Canton Avenue	Washington and Chester (Circulation)	3	125	65 55
Russell	West and Stockholm	4	200	100 30
Monmonier's Court	Washington and Castle	3	12½	6 49
Fountain	Washington and Chester (Circulation)	2	90	38 07
Vincent alley	Edmondson Ave. and Harlem Ave...	4	225	104 61
Durham	Fayette and Hampstead (Circulation)	3	137½	67 88

Hargrove alley	Biddle and John	3	100	38 48
Brown	Decker and Wood	4	475	222 74
20 foot alley, rear Broadway	Chew and Madison (Circulation)	3	125	62 69
Lombard	Ann and Wolf "	4	100	66 49
Durham	Lombard and Pratt "	3	100	42 80
Gough	Ann and Register "	4	75	67 85
Lombard	Pulaski and Monroe	2	66	26 05
10 foot alley, rear Lanvale	Stricker and Gilmor	3	162½	83 59
10 foot alley, rear Light	Clement and Fort Avenue	3	87½	45 64
20 foot alley, rear Boundary Ave.	Charles and Decker	3	287½	111 11
Laurens	Division and Etting	3	312½	140 05
Valley	John and Biddle	3 4	100 200	131 04
Vincent alley	Franklin and Edmondson Avenue	3 4	275 275	237 19
Shield's alley	Greenwillow and Hoffman	3	125	50 32
10 foot alley, rear Pratt	Schroeder and Hollins alley	2	72	26 95
10 foot alley, rear Gilmor	Patterson avenue and Winchester	3	125	46 23
John alley	Ross and New	2	36	16 19
Chester	Bank and Eastern Avenue	3	137½	68 56
Baker	Gilmor and Vincent alley	4	175	95 76
Bruce alley	Baltimore and Fayette	3	212½	97 49
10 foot alley, rear Bank	Choptank and Gist	3	100	56 58
Townsend	Walsh and Wilmer alley (Circulat'n)	4	157	114 20
Stoddard alley	Presstman and Lorman	4	175	96 43
Durham	Bank and Eastern Avenue	3	100	59 36
Stoddard alley	Laurens and Wilson	4	512½	238 12

Location, Size, Number of Feet, and Cost of Distributing Main, Laid from October 31st, 1876, to December 31st, 1877.

Streets in which Pipes are Laid.	Between what Streets.	Size in Inches.	Length in Feet.	Cost.
Chester	Monument and McElderry	4	100	63 45
Jenkins' alley	Wilson and Laurens	6	87½	63 31
10 foot alley, rear Heath	Light and Charles	3	187½	51 23
20 foot alley, rear Hanover	Clement and Fort Avenue	4	50	25 17
10 foot alley, rear Bank	Register and Ann (Circulation)	3	175	81 25
Ann	Bank and Gough "	4	187½	102 44
10 foot alley, near Edmondson ave.	Gilmor and Vincent alley	3	112½	44 64
Durham	Pratt and Lombard (Circulation)	3	100	53 79
Durham	Pratt and Gough "	3	50	37 18
Durham	Gough and Bank "	3	100	52 54
10 foot alley, rear Fulton	Edmondson Avenue and Franklin	2	162	52 89
Cowpen alley	Liberty and Howard	4	425	218 86
Durham	Canton Ave. and Aliceanna (Circulation)	3	150	66 40
Eager	Bond and Broadway (Circulation)	4	62½	40 58
Wolf	Eastern Avenue and Canton Avenue, (Circulation)	4	212½	123 41
Wolf	Canton Ave. and Aliceanna (Circulation)	3	100	61 72
10 foot alley, rear Broadway	Madison and Miller	3	212½	85 46

Fayette	Poppleton and Amity	3	87½	36 08
Short	Orleans and Jefferson	3	112½	61 38
10 foot alley, rear Lanvale	Calhoun and Gilmor	3	425	192 27
Bolton	McMechin and Mosher	6	562½	508 77
Bolton	Lanvale and Dolphin	3	175	76 58
Mosher	Bolton and Jenkins' alley	4	50	25 36
Dolphin	Mason alley and Bolton	3	100	54 50
10 foot alley, rear Monroe	McHenry and Ramsey	4	525	262 62
Bolton	Hoffman and Dolphin	4	175	95 76
Bradford alley	Canton Avenue and Aliceanna	2	36	16 06
Chase	Harford Avenue and Valley	3	62½	27 37
10 foot alley, rear St. Paul	Biddle and John	3	187½	70 83
Baltimore	Hanover and Charles	6	287½	281 50
West Falls Avenue	And Block street	6	2,125	1,463 43
Hollins	Poppleton and Schroeder	3	212½	86 93
St. Mary's Court	Pennsylvania Avenue and Seminary Gate	4	125	90 92
10 foot alley, rear Druid Hill Avenue / McMechin	Mosher and McMechen and 10 foot alley and Stoddard alley	4	1,162½	615 86
Harlem Avenue	Gilmore and Mount	4	400	197 53
Sterling	Chew and Madison	3	212½	107 14
Granby	At Jones' Falls	10 12	75 137½	774 49
Randall	Hall alley and Johnson	4	112½	54 82
Register	Baltimore and Lombard	2	60	23 56
Holland	Canal and Eden	3	175	74 72

Location, Size, Number of Feet, and Cost of Distributing Main, Laid from October 31st, 1876, to December 31st, 1877.

Streets in which Pipes are Laid.	Between what Streets.	Size in Inches.	Length in Feet.	Cost.
Caroline	Eastern Avenue and Bank	4	50	29 72
Townsend	Fulton and Mount	3 4	75 650	349 59
Charles	Boundary Avenue and Brown	3 4	137½ 200	153 19
Poultney	Light and James alley	3	36	17 00
10 foot alley, rear Denmead	Decker and Wood	4	250	139 82
Townsend	Madison and Druid Hill Avenues	4	300	238 26
Hargrove alley	Biddle and John	3	37½	14 35
St. Paul	Huntingdon Avenue and Brown	4	237½	109 14
Chester	Pratt and Gough (Circulation)	3	100	46 57
Peabody alley	Charles and Cathedral	3	325	155 58
Gough	Chester and Wolfe (Circulation)	3	212½	121 50
Woodyear alley	Townsend and Lanvale	4	150	84 69
Abby alley	Hamburg and Cross	2	150	57 09
Hoffman	Aisquith and York Road	3	837½	321 82
Washington	Lombard and Pratt	3 4	37½ 37½	50 60
Division	Baker and Bloome	4	437½	218 87
Hudson alley	Federal and Jones' Falls	3	100	37 87

Washington	Eastern Avenue and Bank	3 4	225 362½	329	90
Wolf	Aliceanna and Lancaster	4	150	98	19
X alley	York and Lee	3	137½	68	47
Chapel	Bank and Canton Ave. (Circulation)	3	150	88	35
20 foot alley, rear Pratt	Choptank and Chester (Circulation)	3	150	67	98
Kimmel alley	Clay and Lexington	2	108	40	67
Mulberry	Hargrove alley and Calvert	2	72	34	92
Vincent alley	Harlem Avenue and Lanvale	4	150	128	86
Caroline	Hampstead and Fayette	2	60	22	05
20 foot alley, rear Edmondson ave.	Vincent alley and Mount	3	150	60	04
Cambridge	Canton Avenue and Windsor (Circ.)	3	162½	64	30
10 foot alley, rear Charles	John and Biddle	4	275	148	38
Chase	Charles and Gravel alley	6	650	565	45
Madeira alley	Pratt and Gough	3	462½	194	36
Cambridge	Leakin and Concord	3	125	50	43
Charles	Brown and Denmead	4	187½	91	71
10 foot alley, rear Ostend	Warner and Eutaw	3	87½	33	67
10 foot alley, rear Gilmore	Townsend and Lanvale	3 4	237½ 125	170	53
10 foot alley, rear Baltimore	Bankard alley and Chester	3	337½	152	82
Dolphin	Pennsylvania Avenue and Walsh	4	87½	61	01
10 foot alley, rear Druid Hill ave.	Lanvale and Dolphin	3	100	54	05
Saratoga	Eutaw and Jasper	3	125	64	70
10 foot alley, rear Charles	Camden and Pratt	3	50	20	16
Dolphin	Etting and Division	3	225	102	49
Mount	Baltimore and Fayette	3	275	125	66

Location, Size, Number of Feet, and Cost of Distributing Main, Laid from October 31st, 1876, to December 31st, 1877.

Streets in which Pipes are Laid.	Between what Streets.	Size in Inches.	Length in Feet.	Cost.
Balderston	Light and Charles	4	450	$267 19
Charles	Balderston and Lombard	6	100	82 41
10 foot alley, rear Hampstead	Bankard alley and Chester	3	150	53 60
Covington	Fort and Clement	4	125	82 25
Jefferson Place	Shirk and Brown	3	125	48 88
Denmead	Maryland avenue and Wood	4	162½	89 68
Arch	Raborg and Baltimore	2	108	41 63
Edmondson Avenue	Fulton and Mount	4	162½	108 61
Calhoun	Townsend and Mosher	4	50	26 23
10 foot alley, rear Charles	Biddle and John	4	162½	124 57
Bell alley	Franklin and Bath	3	112½	50 15
Pleasant	Courtland and Hargrove alley	3	25	25 87
Mulberry	Hargrove alley and Courtland	3	87½	43 22
Hargrove alley Madison	Madison and Saratoga And Calvert and North	6	3,612½	2,918 83
Saratoga	Fulton and Monroe	4	225	127 30
Cooksie	Clement and Fort Avenue	2	180	64 36

New Supplies from October 31st, 1876, to December 31st 1877.

378	Dwellings	at $5 00.....	$1,890 00	
352	"	" 7 50.....	2,640 00	
483	"	" 9 00.....	4,347 00	
232	"	" 12 00.....	2,784 00	
33	"	" 14 00.....	462 00	
22	Warehouses	" 6 00.....	132 00	
14	"	" 8 00.....	112 00	
36	"	" 10 00.....	360 00	
1	"	"	25 00	
				$12,752 00
630	Baths	at $2 00.....	$1,260 00	
524	Water Closets	" 2 00.....	1,048 00	
226	Hose	" 3 00.....	678 00	
219	Horses	" 1 50.....	328 00	
48	Carriages	" 1 50.....	72 00	
20	Urinals	" 1 50.....	30 00	
8	Cows	" 1 00.....	8 00	
				$3,424 50
27	Bars	at $3 00.....	$81 00	
12	"	" 5 00.....	60 00	
9	Barbers	" 3 00.....	27 00	
9	Extra Families	" 2 00.....	18 00	
4	Drugs	" 3 00.....	12 00	
4	Schools	" 12 00.....	48 00	
1	Oyster Packing	"	10 00	
1	" "	"	15 00	
1	" "	"	25 00	
Amount carried forward.....				$16,176 50

Amount brought forward.....				$16,176 50
1 Butchery	at	.....	5 00	
7 Butcheries	"	10 00.....	70 00	
1 Butchery	"	.....	15 00	
5 Errich Pumps	"	6 00.....	30 00	
1 Laundry	"	.....	10 00	
7 Blacksmiths	"	2 50.....	17 50	
2 "	"	5 00.....	10 00	
3 Fountains	"	10 00.....	30 00	
1 Fountain	"	.....	35 00	
1 Rectifier	"	.....	20 00	
1 "	"	.....	25 00	
2 Bottlings	"	5 00.....	10 00	
3 "	"	10 00.....	30 00	
1 Bottling	"	.....	20 00	
8 Basins	"	2 00.....	16 00	
1 Carpenter	"	.....	6 00	
1 "	"	.....	10 00	
1 Special	"	.....	20 00	
1 Fish House	"	.....	10 00	
5 Fire Hose	"	10 00.....	50 00	
2 Dairys	"	5 00.....	10 00	
2 Churches	"	10 00.....	20 00	
1 Church	"	.....	14 00	
1 Heater	"	.....	30 00	
1 Vinegar Manuf'y	"	.....	40 00	
1 Shoe "	"	.....	10 00	
1 Increase Rent	"	.....	2 00	
1 Public Bath	"	.....	10 00	
1 Ice Cream Manuf'y	"	.....	5 00	
1 Guano "	"	.....	5 00	
Amount carried forward.....				$16,176 50

Amount brought forward.....					$16,176 50
1	Dyer	at	.....	5 00	
1	Packer	"	.....	10 00	
1	Slater	"	.....	5 00	
1	Can Manufactory	"	.....	10 00	
1	Special	"	.....	25 00	
4	2 H. Engines	"	$10 00.....	40 00	
1	3 " "	"	.....	15 00	
1	4 " "	"	.....	32 00	
7	4 " "	"	20 00.....	140 00	
1	4½ " "	"	.....	22 50	
2	5 " "	"	25 00.....	50 00	
3	6 " "	"	30 00.....	90 00	
5	8 " "	"	40 00.....	200 00	
3	10 " "	"	50 00.....	150 00	
1	12 " "	"	.....	60 00	
8	13 " "	"	65 00.....	520 00	
5	15 " "	"	75 00.....	375 00	
1	20 " "	"	.....	100 00	
1	25 " "	"	.....	125 00	
2	30 " "	"	150 00.....	300 00	
1	37½ " "	"	.....	187 50	
					$3,343 50
7	Supplies for building water only, yielding a revenue for this year of..				205 50
	Total.....				$19,725 50

Respectfully submitted,

JAMES CURRAN.

Civil Engineer's Report.

REPORT.

OFFICE OF THE CIVIL ENGINEER,
CITY HALL,
Baltimore, January 1st, 1878.

To the Honorable the President
and Members of the Water Board:

GENTLEMEN:

The report of the operations in the Civil Engineer's Department, from November 1st, 1876, to December 31st, 1877, is herewith respectfully submitted for your consideration.

GUNPOWDER PERMANENT SUPPLY.

By this is meant, the introduction of an additional supply of water for the city of Baltimore from the Great Gunpowder Falls, in contra-distinction from the Temporary Supply from the same source, built in 1873, to afford temporary relief to the city in case of a diminution of volume in the supply from Jones' Falls.

The several pieces of work that form the Permanent Supply are classed under the following heads, viz: Loch Raven Storage Lake, in the bed of the Great Gunpowder Falls, the Dam for the retention of the waters of the Gunpowder, the

Tunnel or conduit line, Lake Montebello receiving reservoir and the Pipe lines that convey the water from the reservoir to the city.

A synopsis of the progress made in the construction of these pieces of work, since my last annual report, is herewith given in detail.

LOCH RAVEN.

The principal part of the work done during the past year upon this Lake has been the excavation of the margins of the Gunpowder to the level of the water, the rule being wherever practicable and without too great an expenditure to obtain as much depth of water as possible in the upper portions of the Lake.

At the date of my last annual report the two roads around the Lake were under construction. Since then, the one on the west side has been completed its entire length, whilst the one on the east is finished as far as it is possible to do so at the present. After the heavy hauling incident to the construction of the Lake is over with, these roads will be re-ballasted and fixed so as to fit them for the class of vehicles that will pass over them.

Ten streams, some of them of considerable volume, empty into the Gunpowder, from the site of the Dam to the head waters of the Lake. Where these streams cross these roads, passage ways for the water have to be provided for.

Across the most important one, Peterson's Run, a white marble bridge of three spans, twenty feet each, semi-circular arches and roadway twenty feet wide, has been constructed during the past year. Other bridges are being built as fast as the stone found in the neighborhood is quarried.

A different style of arch and bridge has been adopted for each stream, which will not entail any additional expense, but

give variety of architecture, to what will be when completed the most beautiful and picturesque Lake in the country.

The amount expended upon the construction of Loch Raven to January 1st, 1878, has been $150,521.63.

THE DAM.

Under this head is embraced the erection of the stone dam for the retention of the waters of the Gunpowder, the excavation of the margin of the stream immediately adjacent to the inner side of the dam, and the driving of fifteen hundred feet of the main tunnel line from its northern portal at this point.

The width of the Gunpowder at the site of the dam is 145 feet.

A projecting rock, supposed at first to be only a large boulder, but afterwards found to be bed rock, divides the stream at this point. A coffer dam was built from the east side of the Falls to this rock and the stream forced through the narrow channel on the west side, sufficient room was given for the passage of the stream except in very high water.

Inside of this coffer dam has been going on the past year the excavations for the foundations and the erection of the eastern portion of the Dam.

The foundations in every case have gone to the solid rock; the extreme depth reached below the surface of water in the stream was 13 feet, and the height of the Dam from the extreme depth of foundation to the crest is 34 feet; the wing on the east side goes 8 feet higher; the width of the masonry at the bottom of the Dam is 65 feet.

The excavation made for the east wing of the Dam is 190 feet long, from the east side of the over-fall, and is down to solid rock bottom.

This wing, built of heavy rubble masonry, has been laid to within two feet of the prescribed height, also a large portion of the heavy rubble core of the Dam proper, contained within the limits of the coffer dam.

The stones forming the over-fall of the Dam are 4 feet long, 3 feet deep and 2 feet thick. A good many of these stones were laid during the year, and greater progress would have been made but for three freshets in the Gunpowder, which broke over the coffer dam and left a deposit of mud in the foundations, which had to be removed before the work of laying stone could be renewed. During one of these freshets the Gunpowder rose 13 feet above its average flow, broke over a portion of the work already laid; logs, stumps and even trees, with debris of all kinds, came down with the water, yet not one stone was disturbed by the torrent.

Upon the first approach of cold weather all work of laying stone in hydraulic cement ceased, to be resumed in the spring, as soon as prudence will warrant.

The margin of the Gunpowder just inside of the Dam has been excavated so as to afford as great a depth of water in Loch Raven at the breast of the Dam as is possible to attain. This work is well advanced towards completion.

The fifteen hundred feet of tunneling of the main Tunnel line has been driven 930 feet, 400 feet of it immediately at the portal was through rock that will require to be arched, the balance was through very hard rock, requiring no arching, and has been driven to the 12 feet net diameter.

In the summer, whilst tunneling through this hard rock, a pocket in the lime-stone rock was encountered. This pocket or fissure was composed of sand, gravel and water, in a semi-liquid state, which could not be stopped until the whole of it had run out, and an opening was made 80 feet from the crown

of the tunnel to the surface of the ground, when it was temporarily supported with heavy timbers, and then the area of the tunnel was widened out so as to admit of a brick arch two feet thick, to be turned with skew-backs resting upon solid rock. This arch closes the fissure and admits of the opening from the top of the arch in the tunnel to the surface being filled up to the original level.

The cost of graduation and masonry upon the Dam to January 1st, 1878, has been $98,660.85.

THE TUNNEL OR CONDUIT LINE.

Extending from the Dam on the Gunpowder to Lake Montebello, the receiving Reservoir, is 36,500 feet long; 1500 feet next the Dam is embraced in that section, and the 500 feet next the Reservoir is embraced in the Reservoir section; the balance, 34,500 feet, is sub-divided into seven sections, known as the seven tunnel sections.

These tunnel sections are worked by fifteen shafts, varying from 65 to 300 feet in depth, located at an average distance apart of 2,300 feet.

All of these shafts are down to grade, and the drifts in each of them well advanced. No. 1 shaft, the one nearest the Gunpowder, was sunk entirely through decomposed lime-stone rock, for a distance of 75 feet. No. 2 was mostly through earth and decomposed rock, to within a few feet of the tunnel, when blue gneiss rock was encountered.

These two shafts are located on each side of a lime-stone valley. But little water was met with in sinking them. The thirteen remaining shafts were all through the blue gneiss rock, intermixed with quartz.

In some of them the rock was very hard, with a great

quantity of water making in, that taxed the capacity at times of large steam pumps to keep it down.

The total cost of the fifteen shafts on this line has been $190,220.00.

Judging from the material as shown in each shaft, a pretty good estimate can be formed of the amount of arching necessary to complete the tunnel. Of the 36,500 feet of tunnel, it will be, including arching over the fifteen shafts, necessary to arch 7,000 lineal feet, leaving a balance of 29,500 feet, that will not require anything more than the mere driving of 12 feet circular area through the hard rock to form the Conduit.

In driving the drifts from shaft to shaft, a great deal of water has been encountered, more particularly is this the case where the line passes under what is known as Lime-kiln Bottom, through the lime-stone formation. At other points all along the line considerable water has been encountered, though not in such quantities as in the lime-stone region.

It has required a great amount of care and labor to advance in No. 2 shaft, driving north, owing to the nature of the ground, slow progress has been made during the year. Sections of ten and sixteen feet only can be taken out, when the brick arch must be put in at once to secure the advance.

Although we have been very fortunate in striking hard rock for so great a continuous distance, nevertheless, the risks run in driving through treacherous material, and fighting constantly water in large quantities, require all the skill and energy that can be brought to bear so as to make satisfactory progress.

The amount of brick arch completed on the seven tunnel sections to January 1st, 1878, is 1,380 lineal feet.

Of the whole length of the main tunnel, 36,500 feet, there has been driven to January 1st, 1878, 14,750 feet.

The cost of graduation upon the seven tunnel sections to January 1st, 1878, has been $571,377.80.

LAKE MONTEBELLO.

The Drain Tunnel around this Reservoir, a description of which was given in my last annual report, was completed during the past year, and the stream of water that runs through the valley in which the Reservoir is located was turned into it.

The cost of this Tunnel completed was $97,102.96. Several heavy rain falls occurred after the water was turned in the tunnel and it was found to act very satisfactorily. One rain fall in particular was unusually heavy, yet this tunnel received all the water that came down the valley.

The graduation and masonry upon Lake Montebello have been prosecuted vigorously during the past season.

Besides completing the Drain Tunnel, the Contractor has finished his portion of the Main Tunnel, 500 feet in length.

An open cut on the west side of the Reservoir, from No. 16 Shaft Clifton Tunnel to the valley of Tiffany's Run, known as the north approach cut to Clifton Tunnel, has been taken out and the brick conduit laid therein. This is the only open cut on the whole line from the Gunpowder; its length is 700 feet.

Between the gate-house at Montebello and this cut, and on the same line, the effluent conduit line, the conduit passes across the valley at the upper end of the Lake. Throughout the entire distance across this valley the conduit is laid in a heavy rubble stone cradle. Where there was any doubt about the foundation, the masonry, which in many instances is 7 feet thick below the brick invert of the conduit, was laid on timber grillage. As it is of vital importance that the construction of this conduit should be of great strength, particular care was

taken in the building of it, in the quality of the material used, and in the workmanship. This conduit, besides resting upon and being encased in this heavy rubble masonry, is built of four courses of bricks in the invert, whilst from the spring of the arch, it is six courses of bricks thick.

The side embankments at Lake Montebello, together with the filling in of the bottom at the lower or eastern end of the Lake, are nearly up to grade.

The matter of sinking the puddle trenches in the end embankments of the Lake will be prosecuted this winter, so as to be ready to carry up the puddle cores in these embankments, with the banks during the coming year.

The Clifton tunnel, in which the effluent conduit is laid, is 2,975 long, and has been driven and arched half its distance. The driving and arching of this tunnel has been more difficult, especially at the southern end, than any other piece of work on the whole line; yet with great care and caution no accidents have occurred, and satisfactory progress has been made. The cost of graduation and masonry upon the Reservoir Section to January 1st, 1878, has been $349,939.71.

More than half of the brick arching to be done at Lake Montebello, was done the past year, but 600 feet outside of the tunnels remain to be done.

This work has been faithfully done, and knowing what is paid elsewhere for similar work, by contract, it is a satisfaction to be able to report that ours, which is done by the day, has cost less.

PIPE LINES.

It is proposed to convey the waters of the Gunpowder from the south end of the Clifton tunnel, where the effluent conduit discharges the water from Lake Montebello into a gate cham-

ber, by means of six 40 inch cast iron pipes, to the city limits, at the intersection of Washington Street and Boundary Avenue.

From which latter point connections will be made with the present supply mains throughout the city.

With a view of carrying out this intention, a contract has been made for these pipes, and they are being delivered on the ground.

GAUGINGS OF THE GUNPOWDER

were made at different times in 1877. Whilst the average flow is over 150 millions of gallons in 24 hours, yet at the close of a long continued drought, it was found to have gone down to 70 millions in 24 hours. A record has been kept of the state of the water in the Gunpowder for some time.

From experience, it has been found that the Gunpowder is a stream oftener muddy than clear, taking some time after every rain before it runs clear again. Having this data to go upon, and looking to the future interests of Baltimore, when this supply will be mainly depended upon, I must be pardoned if I seem persistent in bringing up a subject which to me seems of such vital interest.

The storage capacity of Lake Montebello, though large, will not suffice at all times to give the inhabitants of the city a supply of clear water.

Again I am an advocate of frequently cleaning out the conduit that supplies a popular city. This can be done with the conduit from Loch Raven to Lake Montebello. But not so with the effluent conduit from Lake Montebello to the gate chamber on the Clifton estate, where the pipes start. This conduit cannot be cleaned out or looked after because the supply to the city would be interrupted.

If a reservoir of the size of Lake Montebello was at the south end of the effluent conduit, the difficulty would be ob

viated. And more, one great assistance to the stability and strength of Reservoirs, which has been learned by experience, is, that if it be possible to throw a Reservoir out of use for a month or so every year, its embankments are benefited and the soakage becomes less and less every time the operation is performed.

Before closing this report I take this opportunity of expressing my entire satisfaction with the readiness displayed by the contractors upon the line, in cheerfully carrying out instructions given, and in complying with the specifications embraced in their several articles of agreement with the Water Board.

And to the corps of Engineers and Inspectors stationed upon the work my acknowledgments are expressed for the manner in which they have discharged their duties on all occasions.

To their skill and ability in the superintendence of work intrusted to them, and to the faithful performance of all orders and instructions, I refer with satisfaction.

Respectfully submitted,

ROBERT K. MARTIN,

Civil Engineer.

ANNUAL REPORT

OF THE

Board of Visitors

TO THE

BALTIMORE CITY JAIL,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

OFFICERS FOR THE YEAR 1877.

Board of Visitors:

ISAAC S. GEORGE, *President.*

CARROLL SPENCE, EDWIN L. JONES,
L. W. GUNTHER, JOHN M. CARTER.

Warden:

JAMES H. IRVIN.

Clerk:

WM. H. H. TURNER.

Physician:

DR. J. W. HOUCK.

Engineer:

WH. H. MILLER.

Matron:

MRS. CARRIE H. DOLL.

Deputies:

JOHN F. CARTER, WM. H. CROSS,
CHARLES CARROLL, THOS. J. MURRAY,
C. HERGESHIEMER, JOS. J. PETERS,
WM. HOWARD, WM. McCOUBRAY,
ED. C. BOWERS.

Baker:

GEORGE TRUST,

Gardener:

STEPHEN O'LEARY.

REPORT.

BALTIMORE, January 2d, 1878.

To the Honorable the Mayor and
City Council of Baltimore.

GENTLEMEN:

The Board of Visitors herewith submit their Report of the operations of the Baltimore City Jail for the fiscal year ending 31st October last.

In obedience to instructions from the financial officers of the City, we also report operations for the months of November and December, covering the interregnum between the close of the old and the beginning of the new fiscal year, as also a separate account of the deficiency on the old year and the bills incurred for purchases made during the month of October.

It has been the usage for many years past at each stated Board meeting, on the first Tuesday of the month, to audit and provide for the payment of bills incurred during the preceding month. To include both the disbursements and purchases of last October in the old fiscal year, therefore, would have been to put thirteen months in the year.

For statistical information as to the gross receipts and disbursements, monthly and daily average of prisoners, number

of persons committed and how discharged, *during the fiscal year*, we refer to the annexed Tables A, B, C and D.

Table E shows the deficiency on account of the old year and the bills incurred for purchases during the month of October, for which the deficiency ordinance was passed by your Honorable Body. In this connection it must be borne in mind that the *actual* deficiency amounted to $1,890.82, the balance being for *purchases* made during October.

Table F shows the gross receipts and disbursements for November and December, including all bills incurred up to 31st December, inclusive, and the officers' salaries for the month of October, which were omitted by the City Comptroller in the preparation of the deficiency ordinance.

It will thus be seen that the new fiscal year will be begun with an entirely clean sheet, and the extra month being now disposed of, our successors may hereafter, by providing for the payment of the December bills within the year, keep the fiscal year of the Jail in accord with that of the City, instead of being always a month behind, as our predecessors and ourselves have necessarily been.

By reference to our last Annual Report it will be seen that the Board entered upon the past year with an indebtedness of $7,616.10, and for that reason an appropriation of $50,000 for the year was asked for. Had the desired amount been granted us we should have been enabled to discharge the old indebtedness and conduct the operations of the Jail for the fiscal year without exhibiting a deficit at the close.

The reduction of the appropriation to $48,000, however, and the large increase in the number of prisoners during the riot last summer, and influx of tramps immediately thereafter, coupled with the advance in the price of flour,

compelled us, notwithstanding the exercise of rigid economy, to overdraw the appropriation to the extent of $1,890.82.

Charged as we are, with the custody of fellow human beings, who are to be fed and cared for, a sudden increase in the number of prisoners, or advance in the cost of provisions, the breaking out of disease or other untoward event, may at any time, devolve upon the Board of Visitors the necessity of exceeding their annual appropriation. Circumstances beyond our control compelled us to resort to this course during the past year.

UTILIZATION OF PRISON LABOR.

We have not been unmindful of the importance of employing the time and labor of sentenced prisoners, nor have we spared any opportunity to keep this class and the "Bummers"—male and female—occupied.

In the kitchen, garden, stable, blacksmith shop, laundry and sewing room, as many as can be used to advantage are constantly employed; while the services of a carpenter, bricklayer, painter, machinist, tinner or other skilled workmen, are always availed of for any needed repairs or improvements about the premises.

It must be admitted, however, that a large majority of prisoners are necessarily kept idle. It would be manifestly unjust to put those awaiting trial, at work without their consent. Very few of those sentenced or the "Bummers" are skilled laborers, and their brief terms of imprisonment in most cases, preclude their instruction to any advantage. Added to this, the Institution is without the necessary shops and tools for the employment of any considerable number, and the ordinary annual appropriations are insufficient to

provide these and the additional officers required to guard a large number of prisoners at work.

DISCIPLINE AND SANITARY CONDITION.

On the 26th October last, two colored prisoners, Thad. Hall and Codger Williams, sentenced for two years each, as common thieves, escaped from the Institution. They had been employed about the premises for some months, as messengers, and thus had the liberty of the yard during the day. Availing themselves of this privilege and of the early approach of nightfall, (the day was dark and rainy,) they succeeded in climbing over the wall on Madison street, unobserved, at the moment of a change of guards about half past five o'clock in the afternoon.

The Police Department was immediately notified, and our own officers were engaged for some time afterwards, during their hours off duty, in a search for the fugitives, but without success. They were both subsequently captured, however, in the City of Washington, and are now back in the Institution serving the balance of their terms. No other serious breach of discipline has occurred during the year.

The sanitary condition of the Prison continues excellent, as will be seen by reference to the Physician's report annexed.

EXPENSE OF MAINTAINING PRISONERS.

It will be seen that the actual cost of maintaining prisoners during the fiscal year, was but a small fraction over twenty-seven and a quarter cents per diem per capita.

NEW SYSTEM OF KEEPING ACCOUNTS.

Under instructions from the Financial Officers of the City, the Board are now required to pay into the city treasury the

Jail fees received for the maintenance of U. S. prisoners, and from other sources. These have amounted for some years past to an average of about $2,500 per annum; and having been applied to the payment of the expenses of the Institution, (see table A,) have caused a corresponding reduction in the annual appropriations.

The City Comptroller, while permitting us to draw upon this fund during the balance of the past year, has notified us that this course cannot be pursued in the future, and that the expenditures must not exceed the amount actually appropriated by your Honorable Body. This will, of course, necessitate a corresponding increase in the annual appropriations hereafter.

APPROPRIATION REQUIRED.

To meet the liabilities incurred during November and December, 1877, as shown by table F, and provide for the maintenance of the Institution during the year just begun, we recommend an appropriation of ($53,000,) fifty-three thousand dollars; and on behalf of those who are shortly to succeed us in this trust, we respectfully urge that the amount be not diminished, believing, as we do, that it is not more than adequate for a judicious and economical administration of the affairs of the Jail.

Respectfully submitted.

ISAAC S. GEORGE,
CARROLL SPENCE,
EDWIN L. JONES,
JNO. M. CARTER.

TABLE A.

DR. *Being a Summary of Receipts and Expenditures for the year ending October* 31, 1877. CR.

1877.			1876.	
Oct. 31.—To officers' salaries, Physician and Baker..		$14,249 76	Oct. 31.—By balance	$275 26
" Subsistence of Warden's family, sick, &c.		3,352 80	1877.	
" Subsistence of prisoners		15,110 48	Oct. 31.—By United States docket...	1,677 75
" Fuel for winters 1876-7 and 1877-8..... ...		5,032 42	" City docket	357 95
" Expense account, including blankets, dry goods, &c.....		3,544 65	" Accommodation docket.	88 20
" Gas.....		1,253 31	" Sale old barrels.....	137 40
" Water rent.....		290 00	" Sale old boilers, kettles, &c	174 75
" Advertising, stationery, &c.....		184 71	" Mayor and City Council.	49,483 97
" Labor, gardener, &c...		569 21		

" Repairs, including new kettles in kitchen, lumber, stone work, &c., on new gateway, grate bars for boilers, &c., &c...	7,082 78	
" Amount paid Comptroller.	1,555 25	
" Balance.....	89 91	
	$52,195 28	$52,195 28

Respectfully submitted.

JAMES H. IRVIN, *Warden.*

TABLE B.

Showing the Monthly or Daily Average of Prisoners from November 1, 1876, *to October*, 31, 1877.

1876—	November	427
"	December	437
1877—	January	424
"	February	405
"	March	418
"	April	395
"	May	383
"	June	328
"	July	370
"	August	548
"	September	508
"	October	451
		5094

Daily average for	1877	424	6-12
" "	1876	457	3-12
" "	1875	479	6-12
" "	1874	394	4-12

TABLE B.— Continued.

Showing the Monthly or Daily Average of Prisoners from November 1, *to December* 31, 1877.

November	479
December	588

TABLE C.

Showing the Number of Prisoners Committed for Various Causes During the Year Ending October 31, 1877.

CHARGES.	WHITE.		Total White.	COLORED.		Total Colored.	Grand Total.
	Men.	Women.		Men.	Women.		
Peace and Drunkenness	4302	880	5182	958	436	1394	6,576
Larceny	565	79	644	403	144	547	1,191
Assault and Battery	501	17	518	239	45	284	802
Vagrancy	586	133	719	90	77	169	886
Assault with intent to kill	81	2	83	45	7	52	135
Obtaining goods under false pretenses	58	2	60	13	2	15	75
Burglarly	30	.....	30	27	4	31	61
Witnesses for State and United States	60	.....	60	26	3	29	89
Perjury	6	2	8	4	.....	4	12
Murder	3	.....	3	3	.....	3	6
Common Thief and Vagabond	17	1	18	9	.....	9	27
Arson	2	.....	2	2	.....	2	4
Rape and attempt	10	.....	10	7	.....	7	17

Contempt of Court, &c	14	1	15	4	1	5	20
Absconding Seamen	70	.....	70	15	.....	15	85
Smuggling	3	.....	3	1	.....	1	4
Peddling without License	13	.....	13	3	.....	3	16
Destroying property	29	3	32	10	5	15	47
Selling Liquor without License, on Sunday, to Minors, &c	26	5	31	5	5	10	41
Keeping Bawdy House	4	12	16	2	19	21	37
Adultery	2	1	3	1	1	2	5
Bastardy	9	.....	9	3	.....	3	12
Manslaughter	3	.....	3	.....	.....	.....	3
Receiving Stolen Goods	8	.....	8	2	.....	2	10
Selling Lottery Policies	21	1	22	24	5	29	51
Riot and Inciting a Riot	182	2	184	22	.....	22	206
Felony	4	.....	4	2	.....	2	6
Embezzling	15	.....	15	6	....	6	21
Mutiny on ship board, refusing duty, &c.	21	.....	21	9	.....	9	30
Conspiracy	3	.....	3	1	.....	1	4
Picking Pockets	10	.....	10	11	.....	11	21
Bigamy	3	.....	3	2	.....	2	5
Indecent Exposure of person	16	2	18	8	3	11	29
Forgery	10	1	11	.....	.....	.....	11
Abortion	2	.....	2	.....	.....	.....	2
Cruel treatment to Animals, &c	7	.....	7	9	.....	9	16
Gambling House, &c	4	....	4	4	.....	4	8
Common Scold	.....	3	3	.....	2	2	5
Violating Shipping Act	5	.....	5	2	.....	2	7

TABLE C—Continued.

Showing the Number of Prisoners Committed for Various Causes During the Year Ending October 31, 1877.

CHARGES.	WHITE.		Total White.	COLORED.		Total Colored.	Grand Total.
	Men.	Women.		Men.	Women.		
Passing Counterfeit Money	15	.....	15	8	.....	8	23
Cruelty to Animals	.....	.....	.....	.....	.....	.....	.....
Sodomy	2	.....	2	.....	.....	.....	2
Infanticide	.....	.....	....	.....	2	2	2
Maltreating Seamen	7	.....	7	.....	.....	.....	7
Violating Internal Revenue Laws	18	.....	18	.....	.....	.....	18
Violating Oyster Laws	6	.....	6	.....	.....	.....	6
Swindling	2	.....	2	.....	.....	.....	2
Illegal Voting, &c	13	.....	13	5	.....	5	18
Poisoning	.....	.....	.....	.....	2	2	2
Mayhem	1	.....	1	2	1	3	4
Interfering with United States Officers	3	.....	3	.....	.....	.....	3
Keeping Houses for Gaming, &c	4	.....	4	5	.....	5	9

Fugitives from Justice	2	.....	2	4	.....	4	6
Insulting Ladies on the Street	3	.....	3	4	.....	4	7
Opening Letters	4	.....	4	1	.....	1	5
Breaking into Post Office	.....	.....	.....	2	.....	2	2
Violating Police Commissioners' Orders	4	.....	4	.....	.....	.....	4
Enticing to Prostitution	.....	2	2	.....	2	2	4
Defrauding U. S. Government	2	.....	2	.....	.....	.....	2
Libel	1	.....	1	.....	.....	.....	1
Colored Boys for House of Reformation and Instruction	.....	.....	....	68	.....	.....	68
							10,778

TABLE C.—Continued.

Showing the Number of Prisoners Committed for Various Causes, during the months of November and December, 1877, *ending December* 31.

CHARGES.	WHITE.		Total White.	COLORED.		Total Colored.	Grand Total.
	Men.	Women.		Men.	Women.		
Peace and drunkenness	972	168	1140	198	98	296	1436
Larceny	125	13	138	76	33	109	247
Assault and Battery	130	14	144	62	10	72	216
Vagrancy	119	19	138	15	20	35	173
Assault with intent to kill	10	.....	10	11	.....	11	21
Obtaining goods under false pretences	8	.....	8	2	1	3	11
Burglary	8	.....	8	3	1	4	12
Witnesses for State and United States	14	1	15	2	3	5	20
Murder	2	.....	2	.....	.....	.....	2
Common thief and vagabond	2	.....	2	1	.....	1	3
Contempt of Courts, &c.	3	.....	3	2	.....	2	5
Absconding seamen	8	.....	8	2	.....	2	10
Destroying property	7	.....	7	1	1	2	9

Selling liquor without license, to minors &c	3		3				3
Keeping bawdy and disorderly houses	1	2	3		7	7	10
Inciting to riot	13		13	2		2	15
Embezzling	2		2				2
Refusing duty on ship board	5		5	3		3	8
Picking pockets	2		2	2		2	4
Conspiracy	4		4				4
Indecent exposure of person	3		3	2		2	5
Forgery	1		1				1
Bigamy	1		1				1
Violating lottery laws	2		2	4		4	6
Violating revenue laws	3		3				3
Enticing to prostitution	1	1	2				2
Stealing letters from mail	1		1				1
Passing counterfeit money	1		1	1		1	2
Mayhem				1		1	1
Colored boys for House of Reformation and Instruction				9		9	9
							2242

TABLE D.

Showing the number of Persons Committed, and how Discharged, for the year ending October 31, 1877.

Total number of Prisoners committed			10,778
Sent to the Maryland Penitentiary	White men	79	
	White women	7	
		—	86
	Colored men	88	
	Colored women	24	
		—	112
Removed cases	White men	5	
	Colored men	1	
		—	6
Sent to Bay View Asylum	White men	5	
	White women	7	
		—	12
	Colored men	4	
	Colored women	3	
		—	7
Pardoned by President U. S.	White men	1	
	Colored men	1	
		—	2
Pardoned by Governor of Maryland	White men		12
Sent to St. Mary's Industrial School	White boys		5

TABLE D.—Continued.

Died in Jail	White men	4	
	White women	1	
	Colored men	1	
		—	6
Sent to House of Reformation and Instruction for Colored Boys			68
Sent to House of Refuge	White Boys		3
Sent to Spring Grove Asylum	White women		1
Discharged by Courts, Magistrates, expiration of sentence and otherwise			10,065
Remaining in Jail October 31, 1877			393
			10,778

TABLE D.—Continued.

Showing the number of Persons Committed and how Discharged, for the months of November and December, 1877, *ending Dec.* 31.

Total number of Prisoners committed				2,242
Sent to Maryland Penitentiary	White men	17		
	White women	1		
			— 18	
	Colored men	8		
	Colored women	3		
			— 11	
Removed cases	White men	1		
	Colored men	1		
			— 2	
Sent to Bay View Asylum	White men	1		
	Colored men	1		
	Colored women	1		
			— 3	
Sent to House of Refuge	White boys		3	
Died in Jail	White men		2	
Sent to House of Reformation and Instruction for Colored Boys			9	
Discharged by Courts, Magistrates, expiration of sentence and otherwise			1,693	
Remaining in Jail, Dec. 31, 1877			501	
				2,242

TABLE E.

Being a Summary of the deficiency for the year ending October 31, 1877, *and bills incurred during October, exclusive of Officers' salaries.*

1877.		
October 31.—Subsistence of Warden's family, sick, &c.	$277	17
Subsistence of Prisoners.	2,728	64
Fuel.	27	50
Expense account, including blankets, dry goods, &c.	1,199	75
Gas.	141	13
Repairs.	328	90
	$4,703	09
Of which, bills incurred during the month of October, amount to	2,812	27
Leaving actual deficiency on old year.	$1,890	82

TABLE F.

Dr. *Being a Summary of Receipts and Expenditures for November and December*, 1877. Cr.

1877.			1877.		
Dec. 31.—To	Officers' salaries, Physician and Baker	$2,374 96	Dec. 31.—By	balance	$89 91
"	Subsistence of Warden's family, sick, &c	330 22	"	City docket	54 70
"	Subsistence of Prisoners	3,070 13	"	Accommodation docket	15 30
"	Fuel	202 50	"	Sale of old barrels	27 45
"	Expense account, sundries	569 13	"	U. S. Docket	401 50
"	Gas	221 63	"	Mayor and City Council	7,175 69
"	Labor, Gardener	91 66			
"	Repairs, sundries	315 46			
"	Paid to Comptroller	498 95			
"	Balance	89 91			
		$7,764 55			$7,764 55

Respectfully submitted,

James H. Irvin, *Warden.*

Physician's Report.

BALTIMORE CITY JAIL,

1877.

REPORT.

BALTIMORE, November 1, 1877.

To the Board of Visitors of the

Baltimore City Jail:

GENTLEMEN:

I herewith submit my report of the number of cases of disease treated in the Institution over which you have supervision for the year ending October 31, 1877.

I must again congratulate you on the excellent condition of health that has prevailed during the past year, no infectious or contagious diseases having visited us.

The usual precautions as regards ventilation, thorough disinfection, &c., &c., have been as heretofore strictly carried out.

There have been in all 527 cases of disease treated during the year, out of 10,778 persons admitted, six of which proved fatal.

You will find in the tabular statements herewith appended, the character of diseases, the result of treatment, &c., &c.

Having no suggestions to make as regards any improvements that could add to the sanitary condition of the Institution,

I am very truly, &c.,

J. W. HOUCK.

Report of the Cases Treated in the Baltimore City Jail for the year ending October 31, 1877.

Abcess	4	Hysteria	16
Asthma	4	Insanity	5
Catarrh	21	Menorrhazia	4
Cholera Morbus	12	Measles	1
Colic	15	Neuralgia	13
Conjunctinitis	4	Necrosis	1
Constipation	64	Orchitis	1
Consumption	6	Piles	10
Convulsions	3	Pneumonia	1
Debility	6	Puepura	6
Delirium Tremens	53	Sprains	1
Diarrhœa	15	Structure of Urethra	3
Dysentery	8	Syphilis, primary	18
Fever, Intermittent	20	Syphilis, secondary	12
Frost bite	6	Stomatitis	3
Glandular enlargement	12	Tonsillitis	9
Gonorrhœa	15	Tape worm	1
Gastritis	20	Ulcers	28
Heart disease	1	Wounds, incised	15
Hemorrhage of lungs	5	Wounds, gunshot	8
Hepatic derangement	69	Wounds, punctured	6
Herpis	2		
		Total	527

SUMMARY.

White males	289
White females	99
Colored males	96
Colored females	43
Total	527

RESULT OF TREATMENT.

Cured	473
Relieved	36
Sent to Bayview	10
Died	6
Under treatment	2
Total	527

CAUSES OF DEATH.

Consumption	1
Dysentery	1
Heart disease	2
Intemperance	2
Total	6

COLOR AND SEX.

White males	4
Colored males	1
White females	1
	6

EIGHTEENTH ANNUAL REPORT

OF THE

PARK COMMISSION,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE

FISCAL YEAR ENDING DEC. 31, 1877.

THE PARK COMMISSION.

FERDINAND C. LATROBE, Mayor,
Ex-Officio Chairman.

THOMAS SWANN,
JOHN H. B. LATROBE,
WILLIAM E. HOOPER,
CHARLES H. MERCER,
GEORGE S. BROWN,
Commissioners.

REPORT.

To the Honorable the Mayor

and City Council of Baltimore:

The Eighteenth Annual Report of the Public Park Commission respectfully represents:

DRUID HILL PARK.

Since their last report the Commission have been able, with the limited means at their command, to do little more than keep the Park in reasonable repair. This was a work of more than ordinary difficulty, owing to the succession of wet weather and frequent storms that characterized the Summer; some of the principal roads and paths have suffered so much in this way that the Commission were forced to a greater expenditure than might otherwise have been necessary, amounting in many cases to almost a reconstruction of the work. The experience of the Commission of the value of a perfect surface drainage of the roads and paths—a system referred to in their last annual report—has led them to extend it largely during the past year, and always with the best results.

MARYLAND BUILDING.

The Commission referred, in their last report, to the gift that had been made to the city of the building known as "The Maryland Building," at the Centennial Exhibition in Phila-

delphia, and stated their purpose of removing it to Druid Hill Park, and re-erecting it on the mound to the east of the Pavilion and between that and the road to Tempest Hill, where it would be made a Museum, and preserved as a memorial of the great Celebration of our National Independence. This has since been accomplished. What was but a temporary structure at Philadelphia, has been made a permanent one; and the ground around it has been so improved as to render what was before almost unsightly, one of the most attractive portions of the Park.

So far as the plan of a Museum went, the Commission has succeeded in carrying it out even better than they had anticipated. The Maryland Academy of Natural Science has rendered them the most important aid. They are indebted to it among other things, for an excellent collection of Birds, which has since been largely increased, and now occupies the main hall of the building. To Professor Uhler, the President of the Academy, and to others of its members, the Commission have to return thanks for the aid received from them in establishing the Museum; and in Mr. Ludder, the naturalist in their service for a portion of his time, the other portion being given to the Academy, they have an enthusiast as well as an expert in his calling, who in the arrangement of specimens makes them as interesting to the scientist as they are attractive to the general public. In addition to the collection of birds, the Commission have a good collection of shells, in one of the rooms of the building; and this, too, is scientifically arranged, so that the Museum, as it grows, will not only be the means of amusing, but of instructing visitors. A collection of fishes and reptiles is also being made; and the Commission are indebted to the Agricultural Deparment at Washington, for the collection of the wood of the United States, with a descrip-

tive volume, which made a part of the government exhibit at the Centennial celebration. In a word, a nucleus has thus been obtained around which will gather what it is believed will be alike honorable to the City and the State.

The newspapers have mentioned recently the completion, in the Central Park of New York, of a building devoted to Natural History, at a cost of $700,000, which is but the eighteenth part of the structure which New York proposes gradually to erect, for just such purposes as the Commission have in view, in the comparatively very humble, but, nevertheless, interesting effort which they have been making. If, while amusement is afforded, information can be communicated, the casual visitor to a great collection goes away a wiser man than when he entered it; and none the worse, because knowledge, in however small a way, has taken the place of ignorance. It detracts nothing from the beauty of a bird, whose common name in English is familiar, to have on the same label the name in latin by which it can be recognized by the scientists of all the nations of the civilized world. In botany, this is already universally appreciated; and there is not a gardener or florist, to-day, who does not call his plants by the latin names that science has given to them. These views are not stated as original, but that it may be understood that the appreciation of them by the Commission is a guarantee that they will not be lost sight of in the combination of amusement and instruction in this connection.

COLLECTION OF ANIMALS.

Among other objects of interest in Druid Hill Park nothing is more attractive to a large number of visitors than the small collection of animals. This, the Commission hope, will, one day, grow into a Zoological Garden. In fine weather it is always surrounded with visitors, old and young.

ZOOLOGICAL GARDENS.

The plan of a Zoological Garden on the east side of Druid Hill Park has already been mentioned, as the Commission have stated in former reports. All that has prevented the commencement of the work by the preparation of the grounds, has been the want of the Mason lot of nine acres, which the Commission hope it will be within their power to obtain, sooner or later. The necessary legislation has been secured, and the survey made, and when circumstances warrant, the undertaking will be prosecuted.

FISH CULTURE.

Among other objects of great and growing interest in Druid Hill Park is the Fish Culture, which is there carried on. This owes its existence here to the donation by your body of $5,000, and afterwards of $1,000, for the erection of the necessary buildings and appurtenances, at the instance of Mr. T. B. Fergusson, the State Fish Commissioner. The untiring devotion to the subject, intelligence, and cordial relation with the United States Commission of Mr. Fergusson, have established at Druid Hill Park a system, which, in all respects, is said to be unequalled, not only in this country, but, it may be safely said, in any country. The location of the building and its appurtenances has converted what was, at one time, a rough portion of the Park into what is now one of the handsomest.

What has been done in this respect at Druid Hill has induced Professor Baird, at the head of the United States Fish Commission, to make the Park the central station for the Carp Culture, which the Government has for some years been anxious to introduce into the United States from Europe, affording here, as it does there, a valuable food. The attempt

made to introduce the carp from Europe was, at first, not successful; but was renewed again and again, until a beginning has been made at Druid Hill Park which promises satisfactory results. As a preparation for this the Commission appropriated an unsightly ravine whose principal recommendation was a fine spring, to the construction of Carp ponds, the success of which has led the Commission to add to their numbers by constructions which are now in progress, and which will bring into use a portion of the Park which hitherto remained wholly unimproved. The expense of this has been borne, and will continue to be borne, in part by the Fish Commission of the State and the United States. Its recommendation to the Commission is the improvement of the grounds, and the interest which visitors of all sorts take in it.

It is to be said here that there were few things which attracted more attention at the Centennial Exhibition than the hatching of the Salmon, which was there carried on in the model of the hatching house at Druid Hill Park. This was placed in the main hall of the Maryland Building, and occupied there the same position that it now does in the re-erected structure.

NORTHWEST ENTRANCE.

The opening at the northwest angle of Druid Hill Park, which was referred to in the last report, has since been made, and has been adopted, and will be maintained by the Commission as one of the regular entrances into the Park.

MACADAMIZING THE ROADS.

In constructing the roads and walks in Druid Hill Park, the material heretofore used for covering them has been the friable rock, which was found in the Park. The recommenda-

tion of this was its proximity and cheapness; while it was admitted that for other than the light pleasure travel of the Park it was very inferior to a good Macadamized road. The exhaustion of the supply from this source, however, has obliged the Commission to resort to other expedients. The eastern drive had been covered with gravel at the date of the last report with good results; and at the last meeting of the Board it was determined to prepare during the Winter, in the quarries belonging to the Park, a quantity of stone, broken fine, to be used, when the Spring opened, for "remetalling" the roads. This, when compacted with the heavy park rollers, will, it is believed, produce an excellent and lasting work.

SHEEP AND DEER.

Some years since, the Commission purchased from Governor Bowie a ram and twenty ewes, of his well known and celebrated flock of South Down Sheep, and, since then, the Commission have spared no pains in maintaining the purity of the breed, changing the rams from time to time, and replacing them from the best imported stock; and recently, the Commission were so fortunate as to obtain, through the kindness of Governor Bowie, who has been good enough to maintain a supervision over the Park sheep, two rams, which had been sent from a celebrated stock in England for exhibition at the St. Louis Fair. The sale of the male lambs heretofore, and the proceeds of the wool, together with the sale of the ewes, which had ceased, through age, to be ornamental, has made the sheep more than pay for the expense of keeping them and of the shepherd in charge of them. The reputation of the flock is becoming well known through the country, and the spring sales of rams will be more profitable hereafter than it has been heretofore. The intention of the Commission is to increase

the flock from its present number to two hundred. Not only do they add to the picturesque beauty of the Park, but they materially improve the lawns on which they are driven daily by the shepherd.

The deer number upwards of two hundred, the outcome of fifty presented many years ago by Mr. Thomas Winans. They would have been, now, upwards of four hundred; but the Commission have killed and sold annually enough to keep the number down to two hundred or thereabouts. It is only in very cold weather when the ground is covered with snow that they have to be fed, and the proceeds of sales from the flock more than pays all expenses on their account.

INJURY BY STORMS.

The storms of the past year have destroyed upwards of 150 trees in the Park. These are cut into cord-wood and sold, and the proceeds, with what is obtained from other sources, eke out the means of the Commission; and the same thing may be said of the oats, which were sown on the portions of the Park which the Commission found necessary to plough up for the improvement of the lawns in several places.

For a more explicit statement of the work done at the Park in the past year, reference is made to the report of Mr. Faul, the Engineer and Superintendent, which is full and satisfactory as usual.

PATTERSON PARK.

The Commission have little to say in regard to Patterson Park, which has reached that period when not more is required than to keep it in the admirable condition to which it has been brought by Mr. Faul, so far as engineering was required, and by Mr. Frazer, whose skill and intelligence has made it one of the most interesting and beautiful Parks to be

found in the country. The Green House, which was scarcely under way at the date of the last report, is now filled with flowers and plants, arranged not only beautifully, but scientifically, by Mr. Frazer, who, to his executive ability, adds the qualifications of an accomplished and practical florist and gardener. It is now one of the most useful of the contributors to the Horticultural Exhibitions held in Baltimore. Here, however, as at Druid Hill Park, more would be done in the way of improvement, were the means within reach of the Commission not so much restricted. There is but one opinion in regard to the loveliness of Patterson Park.

RIVERSIDE PARK.

The plan prepared by Mr. Faul has been fully carried out here by Mr. Wood; and the plantings that will supply the shade which is so much needed, all promise to be successful. The Park, already, fully justifies the wisdom of its establishment; and the natural beauty of its position becomes more and more appreciated by the crowds that visit it. If it were possible, it should certainly be enlarged by extending it the width of a square westward. This could be done now for much less than it would cost after the beauties of the Park shall have prompted the erection of buildings upon what is now comparatively unoccupied ground.

At the time of the July strikes, application was made to the Park Commission to allow the 5th Regiment to pitch its camp within the enclosure; ordinarily, this would have been greatly objected to, for fear of injury to the recently located walks and drive, and the new plantations. Under the circumstances, however, the Commission were only too glad to contribute to the comfort, in any degree, of those who were engaged in the preservation of order and in the performance of the most painful of the duties of a citizen soldiery.

PLANS FOR THE FUTURE.

Where the means at the disposition of the Commission are so limited, they are, of course, restricted in proportion, and the Commission again call attention to the statement of their last annual report, as follows: "There is still within the limits of Druid Hill Park a piece of undivided property, belonging to George Presstman, Esq., which certainly ought to be condemned; but the cost of which, when so ascertained must be paid by the City. And there is, also, a lot of nine acres, known as the Mason property, (now belonging to Francis White, Esq.,) bordering on the Northern Central Railway, which projects into the Park, and occupies the site which is most appropriate for the Zoological Garden." Both these properties should belong to the City, and the Commission suggest that the sooner they are acquired the better.

When the High Service Reservoir was determined upon, the Commission consented to its construction within the Park on its present site, and gave earth from the surface to the east of it sufficient to complete the embankment, with the understanding that the Commission should be supplied from it with the water which they could have obtained from the reservoir which was already constructed on the hill back of the Pavilion. This was filled by their pumping engine in the ravine below the ice pond, and furnished all the water that the Commission wanted or were likely to want for many years, at a comparatively small expense for fuel and an engine-man. Upon this understanding the Commission sold their engines and boilers, and took up the pipe from the engine to the reservoir, as well as the pipes connecting with the Pavilion and the main fountain. This made the reservoir useless, and the Commission have now determined to fill it up and erect a look-out there,

the view from which will be equal, if not superior, to any that can be obtained in the neighborhood of the City. This will probably be the principal work to be done during the coming winter, unless the severity of the weather may compel the reduction of the force to a minimum.

GENERAL REMARKS.

In their last annual report the Commission stated the effect upon their revenue of the reduction of the Park Tax on the Railways, and shewed that they had reduced their expenses to the smallest figure consistent with the preservation of the two Parks in reputable condition. Still, with all their economy, it was impossible to make the income maintain the Parks; so much so, indeed, that on one occasion Mr. Hooper, one of the Commission, supplied out of his own means, the money to meet the week's pay-roll at Druid Hill Park, and Mr. Mercer, another Commissioner, furnished what was required for the same purpose at Patterson Park. This state of affairs was represented to the Committee of Ways and Means of your Honorable Body, and you appropriated $20,000, which was placed to the credit of the Commission, and has since been used in carrying on the work at Druid Hill and Patterson Parks. The special appropriation for Riverside Park provided for it independently.

The Commission in their last annual report referred to the falling off of their income from 1874, when the Park Tax was reduced, and showed that the expenses of the Commission had exceeded it, notwithstanding their economies had reduced their expenses by the sum of $32,388.86. In 1876 the revenue from the Park Tax alone, after deducting interest and sinking fund, was $40,525.71 up to the 31st of October. For the same period this year it is $38,989.01, showing a falling off of

$7,536.69. The nett income for November and December, bringing the account up to the close of the current year, is $3,071.03, which, added to $38,989.01, and we have $42,060.04, or $4,465.07 less for fourteen months this year than the commission had for twelve months last year. Without the appropriation of $20,000 above referred to, the Commission could not have maintained the two Parks depending upon the revenue from the Railways. As it is, the amount to the credit of the Parks on the 1st December was $7,103.85, chargeable with the interest payable during the month of $3,000, and with the pay-rolls and bills, which will more than cover the balance.

In a word, the time has arrived so often predicted in former communications to your Honorable Body, when if the Parks are to be maintained even upon the most economical footing, an annual appropriation must be made and met by the annual levy; and the Commission venture to suggest whether it may not be worth while, instead of annual appropriations for the benefit of the Parks, to adopt the plan brought to your attention in the last annual report, of crediting the Parks with the entire receipts from the Railways, less an amount equal to the average of the sinking fund for the last three years, the Commission undertaking in that event to relieve the Councils from all applications for means to carry on Druid Hill, Patterson and Riverside Parks, it being further understood that it shall be left to the discretion of the Commission to appropriate the funds under their control among the several Parks as their respective exigencies may require.

So far as the City is concerned, it can make little difference whether money is appropriated to pay the interest on the Park debt, or the same amount is appropriated to meet the wants, from time to time, of the several Parks. The advantage to the Parks of the proposed change will be that with a certain

income, expenditure can be better and more economically regulated than when it is uncertain, and when the Councils are relied on to make up the deficiencies.

The Commission append hereto:

1. Report of the General Superintendent.

2. Receipts and Expenditures of Druid Hill, Patterson and Riverside Parks.

3. Balance Sheet.

4. Comparative Statement.

5. Visitors.

6. List of Employees.

All which is respectfully submitted,

By order of the Commission,

D. Rayhice,

Secretary.

Engineer's Report.

Engineer and General Superintendent's Office,

Druid Hill Park, December 31, 1877.

To the Public Park Commission, Baltimore:

Gentlemen:—My annual report of work done in Druid Hill, Patterson and Riverside Parks, during 1877, is herewith given in the following:

I. DRUID HILL PARK.

The first improvement of attraction was made in consequence of the present received from the Maryland Commission at the Centennial of Philadelphia, in the shape of the "Maryland Building," which had to be removed from there to Druid Hill Park, and erected on the spot designated by you, on the hill east of the "Mansion," a very appropriate location for this building, which is to be used as a Museum. A detailed topographical survey, from the crest of the hill down its slopes, was required to consider its best position, as well as to study the gracefulness and practicability of the surrounding walks; and after your adoption of the plans, a stone foundation was commenced at once, and the re-erection, in parts of the building, as they arrived from Philadelphia, was vigorously prosecuted under the management of Mr. T. L. Jones, the carpenter in charge, so that early in Spring the house was finished outside, and its

inner apartments could be arranged for taking up the small collection of specimens of Natural History on hand and since in care of Captain Cassell. The Park Commission having asked the Maryland Academy of Sciences for their co-operation in erecting this Museum, the Academy kindly deposited quite a large collection of specimens of Natural History, consisting of many foreign animals, birds and reptiles, shells, woods, archæological specimens, etc., which are now on exhibition. In addition to this, several small collections were presented by kind friends to the Museum, and with several hundred other specimens of Natural History, principally birds that were prepared in the building, under the direction of Mr. Lugger, the able naturalist connected with the Academy of Sciences, in whose selection you made a good acquisition, the collection is handsomely filling up, and presents, already, a fine appearance.

The hill on which the Museum stands you have given the name "Centennial Hill," by which to indicate the historical origin of the Museum. In front of the hill a stopping place for carriages has been graded, a number of seats arranged around the hill, a system of walks laid out on it, the soil of of plats improved and set in grass for effecting beautiful sceneries. To prevent washing on the slopes brick gutters and other drains were introduced for usefulness and beauty at the same time.

A general improvement of the Park ground, which had to be postponed from year to year, on account of the scarcity of means, was at last attended to during this year. Large tracts of uneven ground, occasioned by the cultivation of fruit trees and nurseries in old times, were ploughed and leveled to the extent of about two hundred acres, one hundred and forty-four of which are situated in the northern section of the Park, and

about sixty in the eastern part, near the pump house of Druid Lake. The first one hundred and forty-four acres were ploughed in March by three hired teams of Mr. Stephens, a practical farmer, who performed his work to great satisfaction. The last mentioned 60 acres were ploughed by spare teams of the Park. Ploughing in both cases was followed by a few picked hands from the Park force, for leveling down hillocks and other irregularities. In the Winter preceding ploughing, certain quantities of lime were spread over the ground, which was ploughed under in Spring, to this was added some other fertilizing matter, and the whole well harrowed and seeded with a suitable mixture of grass seed, with the addition of oats for the first protection of the tender grass against the heat of summer. The grass so treated has well taken, and the yield of oats has somewhat helped to pay the expenses of the improvement. Another benefit to the Park has been derived from the operation of this ploughing, in the considerable amount of white cobble-stone thrown out and picked up for the use of paving gutters, which improvement having commenced last year was so wisely continued and prosecuted by you this year. The ten thousand feet of substantial gutter, reported last year, have now extended over a distance of five miles—quite an important improvement considering the consequent diminution of future expenses for repairing washes occasioned by the lack of such proper surface drainage. In this direction, many other localities of the park received similiar attention though on a smaller scale, but equally important. Over eleven thousand feet of brick-gutter were laid on walks, and their effect has already proved very satisfactory in appearance, as well as in usefulness. They were constructed by Burke & Demuth, in three layers, one on edge, and two flat, with a bevel of three and a half inches.

In digging out the ground for paving the gutters on both drives and walks, a careful revision of the original lines of roadsides was made by me, and improved, in gracefulness or width, wherever desirable; and the trimming was skilfully executed by Mr. Dietrich, our gardener, who always attends to this kind of work, besides his many other duties.

A new piece of road was graded in connection with the establishment of a new gate at the northwest corner of the Park, at the instance of an application made to you by the "Druid Heights" and "Pimlico Race Course" Companies. This grading was done at the expense of the latter corporation, under my direction, the filling material being borrowed from an old rugged pit in the Park near the place of improvement.

In anticipation of the Pimlico races, a greater travel than usual over the Park roads was expected this year, and certain portions of the road had to be covered thoroughly with a stronger layer of gravel than usual. Coarse gravel was dug in an old pit at "Crow's Nest," from where it was hauled to the places of repair and broken over again in order to connect well with a layer of fine gravel put on top of the coarse, levelled and rolled firmly together. The fine gravel was gained from excavations at the new fish ponds below "Crow's Nest," and both the coarse and fine material, was excavated and hauled on the roads, by contract, at the rate of twenty cents per load. Three miles of carriage-road and a number of walks have been graveled in this way during this year.

About this, our old mode of repairing roads, you have recently requested me to make a comparative estimate of cost, for the more substantial way of repairing by *mac-adamizing*. I fully agree with your ideas in preference of a road-bed of hard, broken stone, instead of gravel, and my report on the subject will give you the required data for your decision.

The eastern approach to the Park, by Mt. Royal Avenue, has been improved by at least one paved gutter, on the most exposed side to washing, and the central space of sixty feet has been planted with two rows of trees which were planted in Spring. They consist of Elms and Lindens (American) in alternation. Another small number of trees were also planted in the vicinity of the high service reservoir, and some along the walk connecting the fish ponds.

The construction of additional fish ponds, below "Crow's Nest," was started last fall, and continued as far as the means of the Fish Commission would reach. These ponds when finished will add much to the appearance of scenery in that part of the Park.

Another improvement in the Park was lately agreed upon in your Board, which was to fill up the abandoned reservoir on top of Druid Hill proper, in order to introduce other embellishments in its place, which will contribute much to the attractiveness of the centre of the Park.

The progressive development of the Park improvements has made changes in the original map unavoidable, and a re-survey becomes more and more necessary. The additions and changes were entered, from year to year, on the small map accompanying the annual reports, and the same lithographic stone has been preserved, for economy's sake, with all its alterations during a period of more than a dozen years. The changes of position of lines and and topography becoming less every year, the preparation of a *final map* seems to be importune, and a treasure like that of Druid Hill Park deserves that all scientific means should be made available to accomplish that purpose. For this reason I reported to you, early in the year, that I had obtained from the U. S. Coast Survey a number of geographical points established by them around Baltimore,

which I intended to use as a reliable basis of my operations. The selection of trigonometrical points in the Park were made in the middle of last Winter, during the absence of leaves from trees, and performed the measurement of angles mostly during the cold season, finishing the remaining angles in Spring. The calculations for the solution of triangles, I also succeeded in finishing; but the latitude and longitude are yet to be calculated before the construction of the map, by co-ordinates, could be attended to. Meanwhile and before this final map can be given to the public, I thought it advisable to add to our present old printed map the shape of the ground, presented by hatchure lines, in the "Lehman's Manor;" and I made great efforts during the Fall and up to this time, in "sketching topography," and though I almost succeeded in getting all notes for that purpose, the time proved too short to accompany this report with such a map. However, the few additional improvements made during the year, have been surveyed and added to the small map, as customary at the instance of the annual report.

II. PATTERSON PARK.

Owing to the small force of laborers employed during the year, little new work was undertaken, as the means hardly allowed anything more than keeping old improvements in tolerable good condition. Notwithstanding, however, some additional attractions were achieved in the establishment of flower beds near the Conservatory; its easy approach of carriages by some alteration of roads, and the collection of plants in the Conservatory itself. Valuable additions to this were made early in the year, partly by purchase, and many others by donation and exchange. These latter were made with the Botanic Gardens of Washington, Hooper Bros. & Thomas, Westchester, Pa. Donations were received from Saunder's

Agricultural Gardens, Washington, W. T. Walters, R. W. L. Rasin, G. S. Brown, W. W. Shence, R. J. Halliday, John Feast and Chas. Hamilton.

The arrangement of plants for this collection, is made by Mr. Fraser, the Superintendent of the Park, in three sections: The northern wing contains the representatives of the cool part of China, Japan and Australia, such as Camelias, Azalias, Acacias, &c. The centre contains the representatives of the Tropics, as Palms, Bananas, Dracaenas, &c.; and the south wing contains the Exotic Fans, as Crotons, Orchids, Begonias, and other foliage and flowering plants.

During the Spring months some trees were planted, and their number considerably increased during this Autumn; and the knoll near Gough street gate has received new wooden steps, in connection with a change required in the direction of the walk. Also large quantities of gravel have been hauled for the repairs of drives and walks which were uniformly well kept during the year. The balance of work done has been of the usual routine character, and is therefore unnecessary of mention. The following is a list of trees and shrubs planted during the year.

List of trees and shrubs planted at Patterson Park during Spring and Fall of 1877:

12 Ashleaved Maple.
12 Norway Maple.
12 Scarlet Maple.
6 Purple leaved Maple.
18 Silver Maple.
12 Colchicum Rubra Maple.
12 Liquid Amber.
24 Norway Spruce.
12 American Linden.

6 Sugar Maple.
2 Variegated Maple.
12 American Elm.
12 American Beech.
6 White Birch.
10 Black Birch.
12 English Oak.
12 California Oak.
6 Turkey Oak.
10 Kentucky Coffee Tree.
17 Kolruteria Paniculata.
12 Salisburia Adiantifolia.
2 Virgelia Lutea (Yellow wood.)
1 Euonimus Europus.
1 English Hawthorn.
16 Black Haw.
12 California Privet.
2 Carolina Buckthorn.
12 European Hornbeam.
12 Japan Judas Tree.
18 Silver leaved Buckthorn.
12 Purple Berberis.
2 Callicarpa Americana.
6 Chaste Tree.
12 Mist or Smoke Tree.
6 Acaciæ Julibrissin.

Total of trees and shrubs, 351.

III. RIVERSIDE PARK.

Funds not being available in time, Spring operations did not commence until the last week in March. From that time until October improvements have been vigorously pushed for-

ward under the judicial management of Wm. E. Woods, the Superintendent of that Park. A force of thirty men and ten carts were employed in grading and preparing the ground for seeding and planting. The great irregularity of the original surface, together with its inferior quality of soil, made grading rather difficult and expensive, excavations being required as deep as five feet, and embankments often to twice this amount. Though a good deal of this heavy grading was performed last year, there was still enough left to be done, and great efforts were required to prepare for seeding and planting a surface of more than sixteen acres of ground. The number of shade trees, evergreens and shrubs, planted out in Spring, amounted to two hundred and eighty-five, besides some three hundred others in the Park nursery. These last have had the advantage of making a year's growth under proper treatment, prior to being set out permanently in the Park. Large specimens of proper varieties for shade, cannot be procured in quantity from any of the nurseries; healthy young trees being used instead, though not at present producing such immediate effect as larger ones would, will, I believe, give more general satisfaction in the end.

Before seeding the various plats, street manure has been liberally mixed with the top soil, with beneficial effect, and it is intended to apply, during the coming winter, a top dressing from a compost pile of street manure, lime and hair offal, over the seeded grass plats, as far as the material will reach.

Since the middle of October, the working force had to be reduced to five men and one cart only; and with such a small force it cannot be expected that Mr. Woods could make much headway for Spring operations of seeding and planting, unless an early appropriation be made for that purpose. There have been constructed during the year, over twenty thousand square

yards of carriage road, and upwards of fifteen thousand square yards of walks; both roads and walks being founded on a good layer of oyster shells firmly rolled and dressed on top with a suitable layer of gravel. This latter could not be found on land near the Park, and had to be substituted by gravel, to which a portion of clay was to be added in order to pack or consolidate the loose material. This process answered equally well, though involving more labor.

To protect the surface of roads and walks against the damages by rain, small sewers and gutters were constructed, with about one hundred cess-pools for the reception and distribution of the water. This system of drainage has, during the heavy rains of the past season, already acted up to expectation.

A large amount of sodding and grading, especially along the walks and drives in that part of the Park where the Fifth Maryland Regiment was encamped during the late riot, has been damaged to some extent, and requires repairing. It must be, however, acknowledged that outside the ground allotted to the soldiers, their respect for improvements deserves high commendation.

Amongst the various other improvements during the year, may be mentioned the erection of a flag pole, (one hundred and eight feet high,) two water closets with wells, the addition of eighty-seven new benches, and the thorough painting of the pump shed and the new Pavilion.

All of which is respectfully submitted,

AUG. FAUL,
Engineer & Gen'l Sup't.

Receipts and Expenditures of Druid Hill Park, year ending December 31, 1877. 14 months.

	Dr.	Cr.
Interest	$42,933 80	
Fish Ponds	1,554 25	
Maryland Centennial Building	5,294 17	
Repairing Roads and Walks	2,699 25	
Engineering	2,346 06	
Police	1,407 27	
Maintenance	49,879 62	
By City Passenger Railway Co., $\frac{4}{5}$ of receipts		$59,332 46
" Citizens' Railway Co., $\frac{4}{5}$ of receipts		10,992 42
" York Road Railway Co., $\frac{4}{5}$ of receipts		964 10
" Baltimore, Peabody Heights and Waverly Railway Co., $\frac{4}{5}$ of receipts		4,830 67
" Sundry sales		1,253 38
" Rent of Mansion		500 00
" Boats		325 00
" Fines		5 00
" Special appropriation $20.000 less $\frac{1}{5}$ Patterson Park $4.000.		16,000 00
" Appropriation for Fish Ponds, Druid Hill Park		1,000 00
	$106,114 42	$95,203 03

Receipts and Expenditures of Patterson Park, year ending December 31st, 1877. 14 months.

	Dr.	Cr.
Interest	$10,733 40	
Conservatory	1,683 00	
Improvements	8,552 96	
Maintenance	4,178 18	
By City Passenger Railway Co., $\frac{1}{5}$ of receipts		$14,833 07
" Citizens' Railway Co., $\frac{1}{5}$ of receipts		2,748 09
" York Road Railway Co., $\frac{1}{5}$ of receipts		240 80
" Baltimore, Peabody Heights and Waverly Railway Co., $\frac{1}{5}$ of receipts		1,207 65
" Rent of Refreshment Saloon		250 00
" Sundry Sales		58 75
" Fines		10 00
" Swings		50 00
" Special appropriation $20,000 00, less $\frac{4}{5}$ Druid Hill Park $16,000 00		4,000 00
	$25,147 54	$23,398 36

Expenditures at Riverside Park, year ending December 31st, 1877. 14 months.

Improvements	$11,350 90
Tools & Implements	177 35
Pavilion	3,865 00
Planting	335 79
Maintenance	5,026 28
	$20,755 32

Balance Sheet Druid Hill and Patterson Parks, year ending December 31st, 1877. 14 months.

	Dr.	Cr.
To Interest	$53,667 20	
" Pay-rolls and improvements	77,642 15	
By balance due Park Board last year		$16,690 54
" receipts from City Passenger Railway Co., less sinking fund		74,165 53
" receipts Citizens' Railway Co., less sinking fund		13,740 51
" York Road Railway Co., less sinking fund		1,205 10
" Baltimore, Peabody Heights and Waverly Railway Co., less sinking fund		6,038 32
" Rent of Mansion, refreshment saloon, sundry sales, fines, &c		2,572 13
" Special appropriation		20,000 00
" " for Fish Ponds Druid Hill Park		1,000 00
	$131,309 35	$135,412 13
Balance due Park Board	4,102 78	
	$135,412 13	$135,412 13

COMPARATIVE STATEMENT.

RECEIPTS.	1875.	1876.	1877.
Receipts of City Passenger Railway for year ending October 31st, less sinking fund	$61,274 13	$67,300 61	$63,338 84
Receipts of Citizens' Railway Co., less sinking fund	16,754 49	17,467 88	13,740 51
Receipts of Baltimore, Peabody Heights and Waverly Railway Co., less sinking fund	4,560 09	5,980 26	6,038 32
Receipts of York Road Railway Co., less sinking fund	1,101 30	1,110 72	1,205 10
Receipts of Baltimore and Hall's Springs Railway Co	3 97		
	$83,633 98	$91,859 47	$84,322 77
Deduct interest on Park stock, as per Register's account	45,333 76	45,333 76	45,333 76
Remaining for Park purposes	$38,300 22	$46,525 71*	$38,987 01
Of which one-fifth goes to Patterson Park	7,660 04	9,305 14	7,797 80
And balance to Druid Hill Park	$30,640 18	$37,220 57	$31,191 21
Add resources peculiar to Druid Hill Park:			
Rent of Mansion	500 00	500 00	500 00
Rent of Car House	50 00		
Sundry sales	2,552 51	954 37	1,045 34

Fines	110 00	60 00	5 00
Boats	350 00	275 00	325 00
Fish Ponds		150 00	
	$34,202 69	$39,159 94	$33,066 55
Additional revenue peculiar to Patterson Park, rent of Refreshment Saloon, &c.	242 00	423 50	318 75
Patterson Park, one-fifth of general revenue	7,660 04	9,305 14	7,797 80
Total applicable to both Parks	$42,104 73	$48,888 58	$41,183 10
EXPENDITURES.			
Labor and materials up to October 31st, Druid Hill Park	$59,272 62	$41,066 48	$55,169 60
Labor and materials up to October 31st, Patterson Park	28,159 20	17,524 89	12,823 37

*There was paid in 1876, one quarter's tax, by the Citizens' Railway Co. which was due in 1875, amounting to $3,877 66, less the sinking fund. Had this been paid in 1875, the receipts in place of the sums mentioned above would have been $42,177 88, for 1875, and $42,648 05 for 1876, and $38,987 01 for 1877. Showing a decrease of $3,661 04 in 1877, as compared with 1876.

Visitors to Druid Hill Park in 1877, *Main Entrance.*

MONTHS.	Double Carriages.	Single Carriages.	Horsemen.	Pedestrians
1876.				
November	2,786	3,235	457	8,656
December	1,245	2,150	336	7,423
1877.				
January	1,121	3,035	288	9,495
February	876	2,352	425	8,886
March	877	2,402	630	8,745
April	1,070	5,600	975	16,355
May	6,274	12,983	1,517	30,281
June	9,665	19,440	912	39,403
July	8,919	19,662	899	53,923
August	12,450	13,271	1,058	44,084
September	10,145	15,607	1,248	27,602
October	11,962	17,221	1,804	20,176
November	6,088	10,260	1,465	12,656
December	4,393	8,437	1,346	11,478
	77,871	135,655	13,360	299,163

Visitors by Reisterstown Entrance.

MONTHS.	Double Carriages.	Single Carriages.	Horsemen.	Pedestrians
1876.				
November	996	1,554	255	915
December	878	1,305	234	528
1877.				
January	759	1,098	217	427
February	816	1,270	337	502
March	974	1,546	480	631
April	1,490	2,491	514	689
May	2,203	4,502	656	813
June	3,261	5,395	767	975
July	3,145	5,806	706	1,202
August	3,417	5,673	523	1,426
September	2,585	4,911	467	1,022
October	6,907	7,560	498	2,103
November	1,301	2,480	303	945
December	960	1,576	256	612
	29,692	47,167	6,213	12,790

Visitors by Railway Gate.

Months.	
1876.	
November	5,991
December	6,111
1877.	
January	3,313
February	4,879
March	4,311
April	11,518
May	22,514
June	25,848
July	24,089
August	23,482
September	15,928
October	10,622
November	6,861
December	4,035
	169,502

Visitors by Mt. Royal Avenue Entrance.

MONTHS.	Double Carriages.	Single Carriages.	Horsemen.	Pedestrians
1876.				
November	676	965	86	756
December	350	402	70	545
1877.				
January	240	240	54	423
February	382	578	183	1,416
March	414	636	239	1,204
April	850	1,256	361	3,420
May	1,714	2,729	394	3,764
June	2,204	3,208	208	7,865
July	2,043	3,189	114	9,385
August	1,551	2,966	148	8,484
September	1,507	2,596	187	5,170
October	1,310	2,396	269	4,405
November	713	1,150	221	1,646
December	507	903	223	1,024
	14,461	23,214	2,757	49,507

Visitors, Schools, Denomination and Number.

	Schools and Private Parties.	No. of Persons.
Methodist	16	3,351
Episcopal	8	828
Presbyterian	9	2,480
Lutheran	8	5,445
Catholic	11	2,506
United Brethren	8	1,917
Private Parties	183	9,150
Classes of Public Schools	79	6,320
	322	31,997

Recapitulation of Visitors to Druid Hill Park. 1877.

Double Carriages	122,024
Single Carriages	206,036
Horsemen	22,330
Pedestrians	361,460
Schools and Private Parties 322. No. of Persons	31,997
By cars and railway gate	169,502

List of Employees.

DRUID HILL PARK, December 31st, 1877.

To the Honorable the Public Park Commissioners.

GENTLEMEN:—The following are the names of the employees of Druid Hill, Patterson and Riverside Parks, with their occupation and compensation:

August Faul, Engineer and General Superintendent	$2,000 00	per annum.
Wm. H. Cassell, Superintendent of Park Police	1,200 00	"
D. Rayhice, Secretary and Treasurer	1,200 00	"
Otto Lugger, Naturalist, Md. Building.	400 00	"
John Dietrich, gardener	12 00	per week.
Wm. Chamberlain, gatekeeper main entrance	8 00	"
Albert Fisher, night watchman main entrance	8 00	"
John Donnelly, gate-keeper railway entrance	8 00	"
Michael Dunn, gate-keeper Mt. Royal entrance	8 00	"
John Murphy, gate-keeper Reisterstown Road entrance	8 00	"

Henry Freyer, gate-keeper Northwestern entrance	8 00 per week.
Joseph M. Hooper, gate-keeper Woodberry entrance	8 00 "
Richard Wood, night gate-keeper Woodberry entrance	8 00 "
Frank Walters, night watchman	8 75 "
Wm. McKim Cassell, Messenger and Assistant Md. Building	8 00 "
Five drivers	1 50 per day.
One driver	1 00 "
One stableman	10 00 per week.
Laborers employed during the year averaged twenty	1 50 per day.

PATTERSON PARK.

Wm. Fraser, Superintendent	$1,200 00 per annum.
Selar Barton, gate-keeper	7 00 per week.
Thomas Fairley, night watchman	1 50 per night.
Two drivers	1 50 per day.
Laborers employed during the year averaged eleven	1 50 per day.

RIVERSIDE PARK.

Edward Woods, Superintendent	$800 00 per annum
Henry Collins, gate-keeper	8 00 per week.
Four laborers	1 25 per day.
One cart	2 50 per day.
Laborers employed during the Summer averaged thirty, and eight carts.	

D. Rayhice, *Sec. and Treas.*

LIVE STOCK, DRUID HILL PARK.

7 mules.
3 horses.
102 sheep.
210 deer.
3 swans.
1 mackaw.
2 horned owls.
2 ant-eaters.
5 monkeys.
16 guinea pigs.
1 corie from South America.
2 ground hogs.
16 English rabbits.
3 gray faxes, 1 red fox.
1 black bear, 1 alligator.

LIVE STOCK, PATTERSON PARK.

2 horses.
4 pea fowls.
6 Chinese geese.
6 wild geese.
1 Egyptian goose.
3 cockatoos, 5 canaries.
2 mackaws, 1 monkey, 1 magpie.
1 bullfinch, 1 chaffinch.
1 Indigo bird.

NINETEENTH ANNUAL REPORT

OF THE

Board of Fire Commissioners

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

Officers of the Fire Department.

FIRE COMMISSIONERS, (Honorary.)

JOHN T. MORRIS, President.

JAMES A. BRUCE, Treasurer. HUGH GIFFORD,

THOMAS W. CAMPBELL. SAM'L W. REGESTER.

Chief Engineer,

JOHN M. HENNICK.

Assistant Engineers,

GEORGE W. ELLENDER, GEORGE F. THOMPSON.

Secretary and Clerk,

GEORGE A. CAMPBELL.

REPORT.

OFFICE BOARD OF FIRE COMMISSIONERS,

Baltimore, January 1, 1878.

To the Honorable the Mayor and City Council:

GENTLEMEN:

The Board of Fire Commissioners beg leave respectfully to submit for your consideration the nineteenth annual report of the Baltimore City Fire Department for the fourteen months ending December 31st, 1877. By reference thereto you will be enabled to ascertain the expenses of running the department for the period named; the estimates of expenses for the fiscal year of eighteen hundred and seventy-eight; the number of fires, the losses caused thereby, the condition of the department, together with a great deal of useful information, not only of interest to yourselves, but also of great importance to the citizens of our city.

During the past year there has been no change in the composition of the Board.

The force of the department remains unchanged, consisting of thirteen (13) Engine Companies and three (3) Hook and Ladder Companies, with a membership of one hundred and ninety-nine (199) men. There are connected with the companies a number of substitutes, who serve in the place of the reg-

lar men, when the latter are off duty; they will average about five to a company. These substitutes are a valuable auxiliary to the companies, as it enables them to get into service very often when the regulars are late in getting to fires. As the department is now constituted the enginemen, assistant enginemen, tillermen and hostlers are required to be on duty at all times, except such hours as are allotted to them for meals; whilst the foremen, firemen and laddermen are paid to do duty at fires when the alarm is sounded, and are very often late in responding, so that with an addition of five substitutes to each, the companies are not kept waiting, when very often they would be, if not for this addition. They are in the line of promotion according to attendance and general good behavior, and the Board has always tried to select the best men that can be had for these places. It is true a great many could be gotten, but they are not of that class of men to whom the property of our citizens could be entrusted at times of fire, as they have all the privileges of the regulars on the fire ground. It may be well, also, to state that in case of disability from injuries received in the service, they are paid the same wages as the regulars, out of the accident fund, when so disabled.

In conformity with the ordinance made for that purpose by the Honorable City Council, the Board again effected an insurance on the lives of the foremen, firemen and laddermen. There were forty-seven (47) cases of accident during the past fourteen months, which were reported to the insurance companies, who promptly paid the indemnity. There was only one death, and that from natural causes. The insurance on the lives of the members is considered by the Board as a wise measure on the part of the City Council, as it not only pays to each member named above the sum of five dollars per week whilst disabled, but also the sum of five hundred dollars in

case of death therefrom, and makes the men brave danger the more, knowing that those depending on them will be provided for in case of accident happening to them. In addition to the five hundred dollars paid by the insurance companies, there is also paid to them the sum of five hundred dollars from the Accident Fund, making one thousand dollars in case of death from accident.

The apparatus of the department consists of thirteen (13) engines, thirteen (13) first hose carriages, and three (3) hook and ladder trucks, in regular service, and four (4) reserve engines, thirteen (13) second hose carriages, and one reserve truck. The reserve apparatus is used instead of the regular, when the latter is out of service for repairs and other necessities. In addition to this there are four fuel wagons, used to supply the engines at fires whilst in service. There are also in service in the department ten (10) steam heaters, used for the purpose of keeping the water at a boiling point, which has been found of great importance in getting the engines quickly into service, and several disastrous fires have been averted by their use. The apparatus is all in first-class condition; some of the engines, however, have been in service since the formation of the department, and particular attention is paid to them: these, however, are used as reserves, but are always kept in as good order as possible, as they are apt to be called into service at any time, and expected to do as well as the regular engines. Several have had new flues put in the boilers, and other necessary alterations made to put them in first-class order.

We have in service in the department sixty-six (66) horses in regular service, and six (6) spare ones, all in first rate condition. The care of the horses is committed to the special charge of Mr. Thomas W. Humphreys, a very competent vet-

erinary surgeon, instead of calling in the services of a surgeon whenever wanted; this new system being a great saving to the department. The duty of the above named gentleman being to visit all the horses daily, and see that everything pertaining to the horses is in a first-class condition.

There are eleven thousand nine hundred and fifty (11,950) feet of good hose in service, and fourteen thousand one hundred and fifty (14,150) feet of medium; the former is used on the first carriages, the latter is used on the second carriages. There was purchased since the last report fifty-eight hundred (5,800) feet, forty-eight hundred of gum, and one thousand of cotton.

There were two hundred and eleven (211) telegraphic alarms of fire, and two hundred and nine (209) silent alarms, for the fourteen months ending December 31st, 1877, and the total loss occasioned thereby amounts to $438,715.57. The greatest loss at any one fire was caused by the burning of the Patapsco Guano Works in March last, which amounted to $116,000,00. The next greatest loss occurred in May last, caused by the destruction of Brown & Bros.' Drug and Chemical Warehouse, Sharp street near Lombard; the loss at this fire amounted to $64,000; this same warehouse was burned out in May, 1876, causing a loss of nearly $225,000. The losses by fire ending twelve months to October 31st, 1876, amounted to $563,248.78, which shows a smaller amount of loss for the past fourteen months than occurred in the twelve months preceding. On Monday, September 24th last, at 12.10 o'clock P. M., a telegram was received from Honorable Carl Schurz, Secretary of the Interior, Washington, D. C., stating that the United States Patent Office was in flames, and calling on us for assistance. An alarm from Box 13 was at once struck out from the City Hall—main office—for the purpose of calling the engines to

the Baltimore and Ohio Railroad Depot. Nos. 1, 2, 3 and 4 Engine companies were sent to their assistance as soon as transportation could be furnished, and arrived there in good time, and succeeded in rendering valuable aid.

The engine and truck houses are in a good condition, and will not require a very large amount for repairs. We cordially endorse the recommendation of the Chief Engineer with reference to the alteration of the stalls in the engine and truck houses, so that the horses will face the apparatus.

On March 14th last an ordinance was passed by the Honorable City Council, transferring the government and control of the Police and Fire Alarm Telegraph to the charge of Fire Commissioners, or in other words, making it, what it really should have been long ago, a part and parcel of the Fire Department; it was formally turned over to the Fire Commissioners about the first part of April. The new Fire Alarm Telegraph was completed in the month of November last, and turned over to the representatives of the city appointed for the purpose—the Mayor, Comptroller and Register. The amount paid to the contractors for the same was $55,000, and the cost of fitting up the new office, battery rooms, &c., was about $1,400. Before being accepted by the city it was given a thorough test, not only the Superintendent of Telegraph, but also by two experts, appointed by the Mayor, Comptroller and Register. These experts, after a careful examination, pronounced it a first-class piece of mechanism in every respect. The completion of this new line relieves a necessity long felt in the Fire Department. The old line, having been in use since the formation of the present Fire Department, was pretty thoroughly worn out, and considered very unreliable; whilst the new line works well in every respect, and it is a source of pride to say in this respect that the new Fire Alarm Telegraph of

the City of Baltimore is the equal, if not the superior, of any in the United States.

On the 29th of November last there was a parade and review of the entire Fire Department, given before the Honorable Mayor and City Council, the Board of Fire Commissioners, and several of the Heads of Executive departments of other cities. The officers and members were equipped in full parade uniform, and looked and marched well. The apparatus and horses were in elegant condition, and reflected great credit on those having charge of the same. The Board is of the opinion that these reviews are of great benefit, as it makes the men take great pride in the property under their charge, and has a tendency to have it always in a first-class condition, not knowing at how short a notice they may be called upon to exhibit it. The men are made to feel that there is an interest taken, and their services are appreciated by our citizens who witness their evolutions, and who always feel a pride and point with pleasure to a well regulated institution. It has therefore been ordered that there shall take place an annual parade of the entire Fire Department, also semi-annual parades for each district respectively.

The Board deems it its duty to again call your attention, and recommend the thorough enforcement of the Building Law to put a stop to the erection of unsafe buildings, that are daily erected in the streets of our city; as they will not only be the means of spreading fires that may occur at any time, but are considered dangerous to life and limb. The Board called the attention of the Honorable City Council to this in its previous report and strongly urged its enforcement.

The Board in its last report also called the attention of the Honorable City Council to the existence of several box factories, and other very inflammable buildings located in the centre

of the city amid some of our most valuable warehouse property. Although action was taken by the late Mayor, to remove these buildings, by revoking the permits previously granted, yet upon hearing of the matter before the courts, he was enjoined from taking further adverse action on the subject. In the meantime the buildings continue to be a standing menace to the surrounding property, and in case of fire, might partly cause a most extensive conflagration.

The law to compel the owners or managers of hotels, theatres, churches and other public places, to see that proper egress is afforded for use in case of fire, should also be well considered. An Act to compel them to have necessary appliances for the safety of life and limb, should also be taken into consideration. The people of this country of late years have had experience enough in this matter to make them more alive to what is needed in this respect. The burning of the Brooklyn Theatre, also of the Grand Southern Hotel in St. Louis, should be evidence enough of that thief of time, procrastination, which makes us all too dilatory. The Honorable City Council at its last session contemplated the passage of such a law, and it was prepared; it is a very wise one indeed, and no time should be lost in giving it careful consideration. Very often when a fire takes place, instead of sounding the alarm, and then trying to subdue or prevent its spread, the latter is generally done before the former, as a great many instances have shown. This good suggestion is therefore not out of place.

The appropriation for the Fire Department, for the fiscal year ending Oct. 31st, 1877, was.....	$160,000 00
Special resolution passed March, 1877, to equip a new Hook and Ladder Co.....	2,800 00
Appropriated.....	$162,800 00

Amount drawn from City Register to October 31st, 1877		156,378 23
Underdrawn October 31st, 1877		$6,421 77
Amount drawn from City Register for November and December, 1877		$ 29,077 36
Amount drawn from same source for fiscal year ending October 31st, 1877		156,378 23
Amount drawn 14 months ending Dec. 31, 1877		$185,455 59
We have also received in addition to the amount drawn from the City Register, from fines, horses, sale of uniforms, manure, and other sources, which is to be seen in the table "Receipts from all Sources," the sum of		$ 5,993 13
Add from City Register		185,455 59
Makes receipts from all sources		$191,448 72
Amount of expenditures for fourteen months ending December 31st, 1877	$187,590 32	
Amount paid City Register, fines, uniforms, manure, &c	3,203 76	
		$190,794 08
Balance Dec. 31st, 1877, (which consists of stock in store room,)		$654 64
The estimate of expenses for the fiscal year 1878, for the Fire Department, amount to		$160,338 00
For Fire Alarm Telegraph		12,720 00
Amount to equip new truck		2,800 00
Total amount asked for		$175,858 00

By reference to the aforegoing statement, it will be seen that the amount received from fines, sale of uniforms, manure, &c., is $5,993.13, and the amount paid over to the City Register is only $3,203.76; this can be explained in the following manner: The amount paid to the City Register is only from March 1st, 1877; the new law of the Council compelled all amounts from outside sources to be paid to the City Register on and after that date; prior to that, the receipts of this kind of the Fire Department, were credited in the general receipts, and accounted for in the general disbursements.

The estimate of expenses of the Fire Department, for 1878, is based upon the expenditures for twelve months, deducted from the expenses of the past fourteen months, viz: Taking $187,500.00 in round figures, as the expenses for fourteen months, by deducting the expenses of the Telegraph Department for November and December, 1877, leaves the sum of about $187,000.00; now by deducting two months expenses for the Fire Department, or one-seventh, leaves the sum of about $161,000.00, in round figures, thus showing that the Board has used great judgment, and taken pains to appropriate the necessary expenses for the next fiscal year. It is an estimate, and as such, it should be understood. There are many things in it that can be calculated very closely, but there are others, such as hose, apparatus, and apparatus repairs, which cannot be; the estimates for which therefore cannot be made less than the figures named or asked for.

No part of the amount appropriated for the equipment of the new truck company, passed at the last session, has been drawn from the City Register, as will be seen in the financial statement. The truck, however, is being built and will be ready for delivery very soon. It may be well to remind your Honorable Body, in this connection, that it will be necessary to pass

an ordinance to establish this proposed new Hook and Ladder Company, to be located in No. 13 Engine house, at the intersection of Fremont street and Myrtle avenue. The resolution, as passed in March, 1877, simply called for the equipment, but not for the establishment of it. The Board is ready to form the company in short notice, which will be of great use in the north western section of the city. When the ordinance is passed, an amount to cover salaries and running expenses for the balance of the year, will necessarily be required to be appropriated, which is not included in the estimate of expenses for the coming year.

Appropriations and Receipts for the fourteen months ending December 31st, 1877.

Appropriated by the City Council for the fiscal year ending October 31st, 1877	$160,000 00
Special resolution, passed March, 1877, to equip new Hook and Ladder Company	2,800 00
Appropriated	$162,800 00
Amount drawn from City Register to October 31st, 1877	156,378 23
Undrawn October 31st, 1877	$6,421 77
Amount drawn from City Register to October 31st, 1877	$156,378 23
Amount drawn for November and December	29,077 36
Amount drawn 14 months to Dec. 31, 1877	$185,455 59

RECEIPTS FROM ALL SOURCES.

Balance October 31st, 1876	$ 1,054 25
City Register	185,455 59
Fines	1,096 60
Sale of uniforms	2,175 89
Sale of horses	900 00
Sale of stable manure	215 00
Sale of old hose, &c	146 44
Insurance indemnity	404 95
Total	$191,448 72
Receipts from all sources	$191,448 72
Amount paid out	190,794 08
To balance	$654 64
To balance December 31st, 1877, which consists of stock in store room	$654 64

Expenditures for the fourteen months ending Dec. 31st, 1877.

Salaries	$129,656 06
Apparatus	5,496 74
Apparatus repairs and alterations	11,433 58
Stationery, printing and advertising	483 33
Accident fund	1,558 55
Feed	8,205 88
Fuel	1,772 90
Furniture	1,734 82
Harness and repairs	1,040 99
Horse shoeing	1,696 68
Hose	5,563 66
Horses	5,631 16
Gas light	1,068 25
Medicines	31 76
Oils, grease, paints, &c	1,171 37
Office expenses, (including pay of Messenger,)	510 85
Washing	1,348 60
Ground rent	1,106 24
Water rent	336 60
Fire Alarm Telegraph, (Nov. and Dec.)	1,492 80
Insurance premium	2,250 00
Insurance indemnity	404 95
Uniform account	2,527 72
Bells	214 41
Miscellaneous	852 42
	$187,590 32
Paid City Register, fines, uniforms, &c	3,203 76
	$190,794 08

Company expenses for the fourteen months ending Dec. 31, 1877.

Engine Company No. 1	$11,057 58	
" " " 2	11,399 80	
" " " 3	10,875 68	
" " " 4	13,701 69	
" " " 5	10,257 59	
" " " 6	10,278 72	
" " " 7	11,158 35	
" " " 8	9,620 22	
" " " 9	10,796 59	
" " " 10	11,648 54	
" " " 11	10,215 85	
" " " 12	10,486 16	
" " " 13	10,357 37	
Hook & Ladder Company No. 1	9,273 01	
" " " " 2	9,009 62	
" " " " 3	8,720 98	
Reserves	2,869 00	
		$171,726 75
Stationery, printing and advertising		483 33
Office expenses		510 85
Police and Fire Alarm Telegraph, (November and December,)		1,492 80
Insurance indemnity		404 95
Uniform account		2,527 72
Miscellaneous		852 42
Officers, salaries, repairs, &c		9,591 50
		$187,590 32

Expenses Police and Fire Alarm Telegraph for the year ending October 31st, 1877.

Appropriated :—		
Salaries	$8,400 00	
Batteries	1,500 00	
Repairs	1,200 00	
Incidentals	75 00	
Unpaid bills, 1876	694 49	
		$11,869 49
Amount to cover deficiency bills, 1877, passed November, 1877		84 12
Total		$11,953 61
Amount drawn		$11,953 61

SPECIAL APPROPRIATIONS NEW TELEGRAPH OFFICE.

Amount appropriated (special) for fitting up new office, &c	$700 00
Amount appropriated (special) to cover deficiency for fitting up office, battery, &c	653 96
	$1,353 96
Amount drawn	1,345 46
Undrawn	$8 50

The estimated amount of Appropriations required for the Baltimore City Fire Department for the fiscal year 1878, *is as follows:*

Salaries		$110,850 00
Apparatus		5,500 00
Apparatus repairs and alterations		10,000 00
Accident		1,800 00
Feed		8,000 00
Furniture		1,000 00
Harness and repairs		1,200 00
Horse shoeing		1,500 00
Hose		5,000 00
Horses		3,500 00
Gas light		1,000 00
Medicines		100 00
Office expenses, (including pay of Messenger,)		600 00
Water rent		388 00
Washing		1,350 00
Fuel		2,500 00
Bells		500 00
Oils, grease, paints, &c		1,250 00
Miscellaneous		850 00
Insurance premium		2,250 00
Ground rents		1,200 00
		$160,338 00
POLICE AND FIRE ALARM TELEGRAPH.		
Salaries	$8,400 00	
Repairs	500 00	
Battery	3,820 00	
		12,720 00
Resolution to equip new Hook and Ladder		2,800 00
Total		$175,858 00

We beg to refer to the accompanying reports of the Chief Engineer and Superintendent of Telegraph for valuable statistics in reference to the department under their charge.

We also desire to return our thanks to the above named officers, and to those associated with them, for their fidelity and energy in the performance of their several duties.

We also desire to acknowledge the valuable servies rendered by the Police Department of our city, and take this means of returning our thanks.

The officers and members of the Fire Insurance Salvage Corps will also accept our kind wishes for their valuable aid.

We again desire to acknowledge the kind attention and consideration shown to the Fire Department both by the Honorable Mayor and City Council, the Comptroller and Register, and the heads of the departments of the city government, who have all shown a great interest in the welfare of the Fire Department.

Respectfully submitted.

JOHN T. MORRIS, *President.*
THOMAS W. CAMPBELL,
JAMES A. BRUCE,
HUGH GIFFORD,
SAMUEL W. REGESTER,
Board of Fire Commissioners.

TEST:

GEO. A. CAMPBELL,
Secretary.

Chief Engineer's Report.

REPORT.

BALTIMORE, January 5th, 1878.

John T. Morris, Esq., President

of the Board of Fire Commissioners.

DEAR SIR:

I herewith present to your honorable body the Nineteenth Annual Report of the Fire Department for the fourteen months ending December 31st, 1877, showing the condition of the apparatus, the quantity and condition of the hose, the number of fires and accidents to members and other matter appertaining to the Department.

The effective force of the Department consists of one hundred and ninety-eight men, classified as follows:

One Chief Engineer.
Two Assistant Engineers.
Thirteen Foremen of Engine Companies.
Three Foremen of Hook and Ladder Companies.
Thirteen Enginemen.
Thirteen Assistant Enginemen.
Sixteen Hostlers.
Three Tillermen.
One Hundred and Four Firemen.
Thirty Laddermen.

They are divided into sixteen companies, thirteen of which are Engines and three Hook and Ladder.

The apparatus being divided as follows:

Thirteen steam fire engines in regular service.
Four steam fire Engines in reserve.
Ten Steam Heaters for Engines.
Twenty-six four wheel hose carriages.
Four fuel wagons.
Three Hook and Ladder Trucks in regular service.
One Hook and Ladder Truck in reserve.
One Supply wagon.

HOSE.

11,950 feet of gum hose in good condition.
13,100 feet of gum hose in medium condition.
1,000 feet of cotton hose in medium condition.

HOSE PURCHASED.

5,800 feet gum hose, 500 feet of this hose was to replace hose burned up at the coal oil fire, June 1st, Box 82.
1,000 feet of canvas hose.

HORSES.

66 in service, 6 in reserve.

FIRES.

The number of alarms during the past fourteen months was 420, of which 211 was telegraph alarms and 209 were extinguished without giving a telegraph alarm.

The estimated loss for which we are indebted to Fire Inspector Holloway is $438,715.57, which is a decrease of $124,

533.21, compared with the twelve months in 1876, when the losses were $563,248.78. Twelve extensive conflagrations have occurred during the past fourteen months requiring second and general alarms as follows:

January 17th, 1877.—Box 72. Renwick's Furniture Factory, Howard street and Lerew alley. Second alarm and general alarm.

February 6.—Box 8. Mason's Cracker Bakery and Bates' Iron Foundry, corner President and Stiles streets. Second alarm.

March 1st.—Box 59. Parrish Bros., Spice and Mustard Mills, 12, 14, 16 and 18 Hollingsworth street. General alarm.

March 4th.—Box 63. Patapsco Guano Works, Philpot street. General alarm.

March 13th, Box 4, W. D. Shurtz and Jesse Lazear, four story warehouse, 11 Commerce street. General alarm.

March 29th.—Box 42. Tyson's Chrome Works, corner of Block and Point streets.

May 31st.—Box 3. Brown & Bros., Drug Store, 25 south Sharp street. General alarm.

June 1st.—Box 82. Mrs. C. Hunt and other Coal Oil Works, corner Canton avenue and Eden streets. General alarm.

July 20th.—Box 13. Baltimore and Ohio Railroad Depot cars and engines. Second alarm.

July 22d.—Box 94. Maughlin & Co., and Cate & Co., Lumber Yard and Plaining Mills, corner Stiles and East Falls avenue. General alarm.

On the 24th of September, at 12.10 P. M., a telegraph dispatch was received from the Hon. Carl Shurz, Secretary of the Interior, stating that the Patent Office was in flames and calling for aid. I immediately ordered Box 13 to be struck

ont, this being the nearest box to the Baltimore and Ohio Railroad Depot. Nos. 1 and 2 Engines were sent to Washington on the first train, followed forty minutes after by Nos. 3 and 4. Upon their arrival in Washington, they went in service on the Livery Stables on G street, near Seventh. The conflagration was stopped at this point. The Engines were in service three hours and returned to Baltimore at 10.10 P. M., the same day.

October 23d, '77.—Box 46. Jas. Musgrave's Tannery, north Front street, near Gay street. Second alarm.

December 22d, '77.—Steamboat Shirley and Piers, corner Light and Pratt streets, containing a large quantity of cotton, coal oil and other freight. Second and general alarms.

REPAIRS AND ALTERATIONS.

No. 1 Engine.—New set of composition metal flues in boiler and other alterations.

No. 3 Engine.—New set of iron flues in boiler.

No. 7 Engine.—New set of composition metal flues in boiler.

No. 8 Engine.—New set of composition metal flues in boiler.

No. 10 Engine.—New boiler, steam cylinder and other alterations.

No. 12 Engine.—Alteration to vaccum chamber.

The Three Hook and Ladder Trucks have been rebuilt to carry bank ladders, three new sets of ladders have been furnished for them.

One new fuel wagon to supply engines at fires.

Four new four wheel horse carriages have been built and distributed to the following Companies, Nos. 1, 2, 4 and 7 engines.

Three new steam heaters have been built for the following Companies, one to each, Nos. 2, 4 and 9 engines.

HOUSES.

The stalls in No. 9 Engine and No. 2 Hook and Ladder Companies, have been altered so that the horses face the apparatus, this makes four houses that have been altered this way, and I would recommend that this alteration should be made in as many houses as possible, as many accidents occur in the horses turning around, when running to the apparatus. All the horses of the Department are loosened by the first stroke of the telegraph.

Nos. 2 and 3 Engine Companies houses require new floors, both in the engine room and stables. All the houses require painting.

CASUALTIES.

No. 1 *Engine Company.*—Nov. 18, Box 6—Engineman J. Yeaton; face cut; not off duty. March 25, Box 142—Fireman T. T. Northouse; hand cut; off duty six days. June 1st, Box 82—Substitute Wm. P. Dawson; hands burnt; off duty ten days. August 29, Box 28—Fireman E. R. Addison; internally injured; off duty thirty-three days. September 21, Box 6—Fireman L. Pistol; hand cut; off duty four days.

No. 2 *Engine Company.*—November 27, Box 24—Fireman C. Burbower; ankle sprained; off duty fifty days. February 18, Box 71—Fireman T. Bodenhi; hand mashed; off duty nine days. March 4, Box 63—Fireman S. Young; back sprained; off duty two days.

No. 3 *Engine Company.*—No casualties in this Company.

No. 4 *Engine Company.*—November 1st—Engineman J. Deal; injured internally; off duty twenty-three days. December 22d, Box 51—Substitute Thos. Howard; badly burned on face, arms and neck; off duty at this date.

No. 5 *Engine Company.*—March 4th, Box 63—Fireman Spafford; nearly suffocated; off duty five days.

No. 6 *Engine Company.*—Box 15, December 15th—Assistant Engineman Wm. Strebb; injured in breast; off duty three days. Box 94, July 22d—Fireman West; ankle sprained; off duty four months.

No. 7 *Engine Company.*—November 2d, Box 124—Fireman McGruvy; knee injured; off duty twelve days. March 1st, Box 59—Fireman S. Gildea; leg injured; off duty two days. March 29th, Box 72—Substitute Logue; foot and leg mashed; off duty nine days. Firemen Allen and Sheiks were slightly injured at the same fire; did not go off duty.

No. 9 *Engine Company.*—January 31st, Box 58—Foreman Kerr; injured in leg; off duty six days. March 30th, Box 15—Assistant Engineman Rogers; kicked by horse; off duty three days. October 20th, Box 126—Fireman Munberg; knee cap broken; off duty 72 days. December 24th, Box 51—Assistant Engineman Rogers; foot mashed; off duty four days.

No. 10 *Engine Company.*—April 28th, Box 14—Engineman Conway; foot sprained; off duty three days.

No. 11 *Engine Company.*—March 3d, Box 27—Fireman E. Smith; injured internally by being thrown from the hose carriage; off duty fourteen days.

No. 8 *Engine Company.*—Box 42, July 21st—Fireman G. Chapman; hand cut; off duty eleven days.

No. 13 *Engine Company.*—Box 75, December 9th—Driver Wm. Kusmaul; ankle sprained; off duty twenty days. Box 31, August 12th—Fireman G. Bowers; overcome by heat; off duty twenty-four hours.

No. 1 *Hook and Ladder Company.*—Box 5, September 23d—Ladderman C. Simpson; small bone in arm broken; off duty forty-five days. Box 15th, December 15th—Substitute Wm. Lockington; foot mashed; off duty seven days. Box 8, February 6th—Ladderman S. Disney; back sprained; off duty

fourteen days. Box 59, March 1st—Ladderman Wm. Stewart; hand cut with glass; off duty six days. Box 59, March 1st—Substitute A. Chrismer; foot mashed by a ladder; off duty eight days. Box 63, March 4th—Ladderman C. Simpson; foot mashed; off duty two days. December 22d, Box 51—Ladderman S. Disney; hands burned; off duty nine days. May 28th—Ladderman S. Ward; foot injured by horse treading on it; off duty two days. June 23d—Foreman Mears; injured internally by ladder falling on him; off duty ten days.

No. 2 Hook and Ladder Company.—Box 81, January 1st—Ladderman W. Lashorne; ankle sprained; off duty twenty-eight days. Box 13, January 6th—Ladderman S. W. Friedhofer; injured internally; off duty seven days. Box 71, March 18th—Ladderman W. Lashorne; knee sprained; off duty twenty-five days. Box 3, May 31st—Substitute P. Hoofman; ankle sprained; off duty twelve days. Box 13, September 24th—Foreman G. Houck; ankle sprained; off duty four days. May 3d—Tillerman S. Gill; struck in the eye with wire; off duty two days.

No. 3 Hook and Ladder Company.—Box 63, March 4th—Ladderman Thomas Taylor; suffocated with sulphur; off duty four days. Box 63, March 4th—Ladderman Sam Foster; nail in his foot; off duty fifteen days. Box 4, March 13th—Ladderman R. Henrix; hand cut with glass; off duty thirty-five days. Box 7, October 25th—Ladderman John N. Downs; legs mashed; off duty six days. Box 67, March 9th—Substitute George Dannhauser; foot mashed; off duty thirty-four days. Box 4, March 13th—Substitute N. Sapp; overcome with heat and smoke; off duty one day.

DEATHS.

Wm. Smith, No. 8 Engine Company, died of consumption, March 11th, 1877.

Casualties, 49.

Number of days members were off duty injured, 716.

In conclusion, I desire to return my thanks to the members of the Board for their kindness shown to me at all times, and the very respectful manner in which they have entertained my suggestions during the past fourteen months. I also desire to return my thanks to the officers and members for the prompt manner in which they have obeyed orders, and also for their valuable co-operation in suppressing fires, and to Superintendent J. F. Morrison, for the prompt manner in which he has always attended to the wants of the Fire Department in connection with his own.

Respectfully submitted.

JOHN M. HENNICK,

Chief Engineer.

REPORT

OF THE

Superintendent of Police

AND FIRE ALARM TELEGRAPH.

REPORT.

BALTIMORE, MD., January 4, 1878.

The Honorable the President and Members

of the Board of Fire Commissioners:

GENTLEMEN:

I have the honor to submit herewith my annual report of the operations of the Police and Fire Alarm Telegraph for the fiscal year ending December 31st, 1877.

The pressing need for the reconstruction of the Police and Fire Alarm Telegraph had long been felt by the Fire Commissioners, as well as by the intelligent gentlemen appointed by them as officers of the Fire Department; but it has only been within the last few years that insurance men, and the great body of citizens generally, have been brought to a realizing sense of the benefits derived from this most important adjunct to every well-ordered fire department.

The first steps to establish a system of Police and Fire Alarm Telegraph for this city were taken in the year 1857, directly after Farmer & Channing, of Boston, had practically demonstrated its utility in that city. Considerable opposition to its adoption was manifested in the Baltimore City Councils, and

the project was finally defeated. Its friends, however, again introduced it into the Council of 1858, and an ordinance passed both Branches, and received the approval of the then Mayor—Hon. Thos. Swann—on the seventh day of December, appropriating thirty-three thousand dollars for the construction of a system of Police and Fire Alarm Telegraph.

This telegraph was constructed and placed in service on the first day of July, 1859, by Gamewell, Phillips & Co., and comprised fifteen miles of wire, connecting thirty street stations, or boxes of the pattern known as "crank" boxes. The central office was furnished with a small bell on each of the five circuits upon which to receive an alarm, and a Morse key, to which all the circuits were connected, to send it out again to the engine houses. This was done by tapping with the finger upon the key a number of times to correspond with the number of the station from which the alarm had been received. Additional wires had been added from time to time, and boxes put in, until at the time when I took charge of the telegraph—March, 1876—the system comprised five—the original five fire wires—with an aggregate length of thirty-seven miles of wire, exclusive of the police and quarantine lines. These wires carried eighty-two boxes, and a large number of engine house and private gongs—direct acting.

On the sixteenth of May, I was directed by his Honor Mayor Latrobe to make a thorough inspection of the telegraph system, and report its exact condition to him, together with an estimate of the probable cost of placing it in such order as to fulfil the requirements of the Fire Department. This report and estimate I subsequently laid before the Mayor, placing the cost of the work at $55,000.

His Honor was pleased to concur in my recommendations, and transmitted my report with a special message to the City

Council. The matter was referred to the Committee on Fire Department, who made the following report on the ninth day of October, 1876:

"The Joint Standing Committee on Fire Department, to whom was referred so much of the Mayor's communication, dated the eleventh day of September, 1876, as relates to the Police and Fire Alarm Telegraph, and also the communication of the Superintendent of the Police and Fire Alarm Telegraph, dated May 16th, having fully considered the same, respectfully report that they concur in the views set forth in the said communications on the present condition of the Police and Fire Alarm Telegraph, and are thoroughly convinced of the urgent necessity for immediate action on the part of the Mayor and City Council to reconstruct the same, and supply it with the modern facilities, in order to render it efficient for the accomplishment of the purposes for which the Fire Department was created. It is apparent, not only from the views expressed by those officers, but from the actual investigations of your committee, that the telegraph, as at present existing, is inadequate to afford that protection to the lives and property of the citizens of Baltimore, which it is the duty of the corporate authorities to supply.

"Since the construction of the present wires the city has expanded by the erection of vast improvements in almost every direction, especially in the north-eastern, and north and south-western sections. The wires as at present constituted are inadequate to be further taxed by the erection of additional fire alarm boxes, in those newly improved and now densely populated portions of the city. To delay longer in extending the telegraph to these sections of the city would be an unwise discrimination, as the inhabitants thereof, paying as they do their full proportion of the expenses of the department, are entitled to the enjoyment of their full share of its advantages.

"Although the work of reconstructing the department will entail what may be considered a large expenditure of money, yet the cost of the same is but a trifle when compared to the consequences which may result if the work is not done without further delay. The imperfect condition of the wires has been fully delineated by the Superintendent in his communication, and if there should be delay in remedying the evils which he points out, and serious loss and damage should ensue therefrom, it might rightfully be charged as an act of culpable negligence on the part of the corporation.

"The committee believe it to be their duty to meet their responsibility, and to recommend that immediate action be taken. They therefore submit the accompanying ordinance, and recommend its passage by the respective Branches of the City Council.

(Signed) JOHN S. HOGG,
M. W. DONAVIN,
JOHN G. GEHRING,
First Branch.

JOHN F. SOMERLOCK,
Second Branch."

The first section of the ordinance referred to is as follows, and contains the main points of the ordinance:

"Be it enacted and ordained by the Mayor and City Council of Baltimore, that the Superintendent of the Police and Fire Alarm Telegraph, with the approbation of the Mayor, Comptroller and Register of the City, be, and he is hereby, authorized and empowered to reconstruct the Police and Fire Alarm Telegraph of the city, according to the most approved system now in use, and to purchase all such machinery and apparatus for properly equipping the same as may be necessary for a thorough

Police and Fire Alarm Telegraph Department for the the City of Baltimore."

The third section of the ordinance provides "that before any money appropriated by this ordinance shall be expended, all contracts entered into by the said Superintendent, for or on account of the reconstruction and equipment of said Police and Fire Alarm Telegraph, shall be ratified and approved, and the bills therefor endorsed by the Mayor, Comptroller and Register."

Under the provisions of this ordinance, and with the approbation of the Mayor, Comptroller and Register, I engaged in correspondence with and received proposals from every prominent and well-known party engaged in the construction and sale of Police and Fire Alarm Telegraph. These proposals were submitted to the commission, composed of the above-named city officials, and opened in the presence of the parties offering them. The commission then referred the proposals to me, with instructions to report at once which of the systems proposed was in my judgment the most perfect, and best suited to our wants.

Acting under these instructions, I made the most careful examination of all the telegraphs offered. I also sought from those using such apparatus, as well as those connected with the manufacture and scientific testing of them, such information as they might be possessed of. Upon the facts and data thus obtained I made the following report:

BALTIMORE, MD., December 16, 1876.

To the Hon. Ferdinand C. Latrobe, Mayor,

Joshua Vansant, Comptroller, and

John A. Robb, Register, of the City:

GENTLEMEN:

I have carefully examined the proposals for the construction of a Police and Fire Alarm Telegraph for the City of Balti-

more, which at a former meeting of your commission were referred to me for such information as I might possess, which would properly influence the awarding of a contract, and now propose to submit to you such facts concerning the several systems offered as I have been able to secure, together with an analysis of the bids.

The application of the telegraph to the transmitting of alarms of fire seems to have attracted the attention of persons interested in electrical science as early as the year 1843, when Alexander Bain procured an English patent for an apparatus, which, however, never produced any practical results. About the year 1851, Dumont & Hunter are mentioned as having procured letters patent for fire alarm telegraph, but nothing of practical value resulted from their experiments.

The first practical applications of the telegraph to this purpose were made in the year 1851, in the cities of New York and Berlin; that in the former city under the direction of Charles Robinson, and in the latter under the Siemens Brothers, eminent practical electricians. The system applied by these gentlemen was simply the outgrowth of the Morse telegraph, which was then struggling up to success, and consisted in connecting watch-towers together by a single Morse telegraph line, by means of which watchmen stationed in the towers could telegraph to each other the locality of a fire as observed from their elevated positions. The alarms were given upon bells rung by hand.

The present system of Fire Alarm Telegraph in use in Baltimore is that of Farmer & Channing, American patent of May, 1857.

Dr. Wm. F. Channing, of Boston, first gave his attention to this subject in 1845, one year after the introduction of the commercial telegraph by Prof. S. F. B. Morse, and published

several articles that year, attempting to prove its feasibility. Three years later, in 1848, Mr. M. G. Farmer invented a method of ringing bells by electricity, and in an experimental trial the bell in the tower of the Boston City Hall was rung by an operator in New York. Again three years elapsed before anything practical had been achieved.

The first Fire Alarm Telegraph ever put in successful operation was that constructed under these inventions by the City of Boston in 1852. Since that time no change has been made in the system of Fire Alarm Telegraph, although many improvements have been made in the mechanical devices for carrying it into effect. That system comprised a central office or station, a series of signal-boxes at suitable intervals throughout the city, connected in one or more circuits with the central station, and a series of alarm bells connected with the central station on another circuit or wire.

The signal-boxes contained a circuit-breaking wheel, having on its periphery cogs or teeth, with interdental spaces so arranged that when the wheel was revolved by hand the circuit was broken in such a manner as to indicate the number given to the box making the signal. This number being received at the central station, was immediately transmitted over the bell circuits, bells being so struck as to indicate the box at which the alarm originated.

Like most other inventions the mechanism by which these functions was originally performed was crude and imperfect, and much time and labor were expended in improving it before it became sufficiently reliable to satisfy public criticism. In the year 1857, however, this result seems to have been achieved, and patents were issued to Farmer & Channing, (since extended and reissued,) which were afterwards sold to Gamewell & Co., of New York. The firm of Gamewell & Co. at that time con-

sisted, I believe, of J. N. Gamewell, the senior member; Mr. Kennard, now the Superintendent of the Boston Fire Alarm Telegraph; Mr. Mendel, of Boston, and Mr. Gardiner, a member of the present Gamewell firm.

Some time in 1864, C. Robinson patented electro-magnetic mechanism for ringing fire alarm bells, and from that time to the present the records of the Patent Office show twenty-two patents for improvements in the mechanical devices for making and distributing fire alarms, nearly all of which seem, either by right of invention or purchase, to have become the property of Gamewell & Co. Recently, however, other parties have invented fire alarm apparatus, which has been introduced into five towns and cities in Ohio, Indiana and Michigan. One of the new companies—the National Fire Alarm Telegraph Company, of Richmond, Indiana—has more recently secured contracts for the construction of their system in Sacramento and San Jose, California.

The parties making bids for the construction of Fire Alarm Telegraph in Baltimore claim that their systems have been introduced as follows, viz: Gamewell & Co.—Albany, N. Y.; Alleghany, Penn.; Buffalo, N. Y.; Baltimore, Md.; Chicago, Ill.; Cincinnati, O.; Columbus, O.; Cambridge, Mass.; Charlestown, Mass.; Chelsea, Mass.; Covington, Ky.; Detroit, Mich.; Dayton, O.; Elizabeth, N. J.; Fall River, Mass.; Fitchburg, Mass.; Fond du Lac, Wis.; Harrisburg, Penn.; Hartford, Conn.; Halifax, N. S.; Hyde Park, Ill; Indianapolis, Ind.; Jersey City, N. J.; Kalamazo, Mich.; Lansingburg, N. Y.; Louisville, Ky.; Lowell, Mass.: Lawrence, Mass.; Lynn, Mass.; Manchester, N. H.; Mobile, Ala.; Montreal, Canada; Milwaukie, Wis.; Mineapolis, Minn.; New York City; New Orleans, La.; New Bedford, Mass.; New Haven, Conn.; Newark, N. J.; Nashville, Tenn.; Newton, Mass.; Newport, Ky.;

Newport, R. I.; Omaha, Neb.; Philadelphia, Penn.; Pittsburg, Penn.; Portland, Me.; Peoria, Ill.; Providence, R. I.; Portland, Oregon; Patterson, N. J.; Pawtucket, R. I.; Quebec, Ont.; Reading, Pa.; Rochester, N. Y.; Richmond, Va.; St. Louis, Mo.; St. John, N. B.; St. Paul, Minn.; Springfield, Ill.; San Francisco, Cal.; Savannah, Ga.; Syracuse, N. Y.; Somerville, Mass.; Terre Haute, Ind.; Troy, N. Y.; Taunton, Mass.; Toledo, O.; Toronto, Canada; West Roxburg, Mass.; Washington, D. C.; Worcester, Mass.; Norwich, Conn.; Galveston, Texas; Springfield, O.; Charleston, S. C.

The National Telegraph Company—Hamilton, O.; Richmond, Ind., and Fort Wayne, Ind.

The Michigan Company, of Jackson, Mich.—At Grand Rapids, Mich., and Bay City, Mich.

The Domestic Telegraph Company, of New York, have never as yet constructed Fire Alarm Telegraph, but propose to use the same system as that now used by them to summon messenger boys in the City of New York, with some modifications and additions.

Stephen Chester proposes to supply the City of Baltimore with all the apparatus called for in specifications, and considerably more, and has furnished me, from time to time, drawings of different apparatus which he proposes furnishing. Mr. Chester's telegraph is nowhere in actual operation.

I now come to the apparatus, or designs for apparatus offered by the different parties making bids. Without the means of illustration I cannot undertake fully to explain their merits or demerits, but will endeavor to give you some of the most important features, in a manner that will be readily comprehended.

The National Company offers a system for which they claim the following advantages, viz: Simplicity of construction, and consequently less liability to get out of order; economy of

maintenance, because, no repeaters being used, less skilled persons will be required to keep it in order, and finally, to use their own language, "Our system, operating directly from the signal-boxes to the gongs in the engine houses, prevents any delays in the re-transmission of signals through repeaters, or the possibility of no signal in case the repeater at central office should fail to work." The system comprises a continuous or duplicated open circuit, upon which are the signal-boxes and engine house and other machinery for alarms. They have no "central office," or automatic repeating apparatus, although, in spite of their disclaimer in the explanation of their system, of the utility of such apparatus, their electrician, Mr. McCullough, has now in course of construction an automatic switch, which it is proposed to offer to the City of Baltimore as a substitute or equivalent for a repeating apparatus. This experiment, even if performing successfully the functions assigned to it, can in no way be considered an *equivalent* for an automatic or central office repeater.

The signal-box shows considerable ingenuity in its design and construction. It, however, developes a weakness in the beginning, as it makes its electrical connections through a rolling instead of a rubbing contact, the inferiority of which consists in the fact that the rubbing contact, by the nature of its action, keeps its pathway clean, while the rolling contact is particularly unsafe in mechanism, more or less exposed to dust or oxydization. This system, while using the inevitable break-wheel, throws its boxes and machinery into circuit by the use of a ground or earth contact, made by a ground wire connecting with the axle of a small metal wheel, revolving in contact with the break-wheel. Here is an essential weakness in a most important point. A bad "earth," as it is technically called, caused by the breaking of the ground wire, dry or

frozen earth, or peculiar geological formations, familiar to telegraphic engineers, would render the particular box at which such fault existed entirely useless, and there would be no way of detecting such, unless by sending in an alarm, which in case of a fire, might prove a costly "test." Again, it is well known that "escapes" or "grounds" are a much greater source of trouble in working wires generally than breakage or other causes. Now if a ground or heavy escape should come upon the wires of this system, it would not only cut off all distant communications, but would render really useless, by permanently closing the circuit, the home end of the wire. There is no way by which either such an escape, or a clean break of the wire, could be discovered, excepting by an actual manual test. Where certainty, promptness and reliability of action are required, the closed circuit must always be used. A closed circuit line may be properly termed a "live" line, because if accidentally opened, grounded, or otherwise interrupted, it will speak for itself, calling attention to its disabled condition, and need of repairs. An open circuit, on the contrary, is normally dead, and cannot be summoned into life without the use of certain appliances for passing the electrical current over it. The good points of a closed circuit are thus positively good, while the *best* points in the open circuit are only negatively so.

The device for setting the mechanism of the alarm box in motion is objectionable. It is a sort of "push-pin" arrangement at the top of the box, and is not readily discoverable, a defect which might occasion delay in sending an alarm by one not familiar with the box. The absence of a bell and key are also grave defects. There are many occasions when it is necessary, for the efficient handling of the Fire Department, to have communications with different engine houses by signals that cannot be had by merely pulling the box.

The alarm apparatus of this company, to be successfully worked, will require heavy battery power as well as mechanical force. The gongs are struck by the direct downward stroke of a rod or plunger, which gives a blow far inferior to the swinging lateral blow delivered by the strikers of several other inventions. Having never tested their bell-striking machines upon large bells, I am not prepared to express an opinion as to their merits.

Referring again to the language of the proposals, where it is stated as one of the advantages of their system that "Doing away with the repeaters, a very delicate and expensive instrument, less skilled operators are required to keep the apparatus in perfect and safe working order," I would state that we have alarms of fire from other sources besides the signal-boxes, and must have some method of sending them out. We have made arrangements with the American District Telegraph Company to utilize their private fire telegraph, and doubtless there will be other private telegraphic schemes established, whose services will be readily accepted by this department. For this reason, if for no other, I think it is essential that we should have the apparatus necessary for repeating alarms from one circuit to another, and for sending out such alarms as may be sent to the central office. Finally, I would say that no matter what system of telegraph the City of Baltimore may see fit to adopt, when its large extent of territory is considered, and the amount of property (to say nothing of human life) depending for safety from the ravages of fire upon that system, I consider that any proposition looking to the employment of unskilled persons to guard such interests, is a false measure of economy, likely to lead to results directly the reverse of economical.

The amount for which this company propose to construct their system is $51,750.

The Michigan Fire Alarm Telegraph Company offer to construct their system for $53,890.

As stated before in this report, their system is working in Bay City and Grand Rapids, Mich.; but the system as there applied could in no way serve the purposes of so large a city as Baltimore. Their boxes contain the break-wheel in a modified form, an endless chain passing over it with projecting points to make and break the circuit. One good feature in the box is the point of contact, which is wedge-shaped, striking into a V formed platina spring, thus making a solid metal contact. It has a non-interfering device, comprising a small time-train movement, which picks up a lever on the first motion of the armature in every box, and holds for a set time, during which the hooks of the boxes, if pulled, would have no effect on the signal machinery. The inner cases of the boxes are made of wood, soaked in parafine grease, to protect the clock-work from dampness, and for insulating purposes. This company has no central office repeater as yet constructed, but I have received a diagram of an experimental repeater, which they contemplate including in their system.

The Domestic Fire Alarm Telegraph Company, of New York, offer for sale to the City of Baltimore machinery and batteries for a system of Fire Alarm Telegraph for $17,500, but do not propose either to construct the lines or place the machinery in position.

Their apparatus consists of one hundred and fifty automatic signal-boxes, twenty-four electro-mechanical gong-strikers, sixty-five electric bells, keys and lightning arresters, five self-starting recorders and relays, two repeaters, one switch-board, two testing galvanometers, one hundred and fifty small electric bells for boxes, with keys and lightning arresters, and sufficient battery to work the system. The boxes work on open circuit,

and are open to all the objections heretofore alluded to in the National Company's system. They have a central office repeating apparatus. The alarm—if a noiseless record on paper can be called an alarm—is made by the passage of the electric current through strips of paper chemically prepared. This is done very quickly, the signal being made and recorded in two or three seconds, in colored dots upon the paper. The repeater consists of a cylinder, carrying as many break-wheels as there are signal-boxes. Each break-wheel has a number of cogs and interdental spaces, corresponding to the number of the box it represents; and on each of them is placed a spring, connected with the alarm wires. When the train of clock-work which carries the cylinder is set in motion, the alarm is sent out to all the engine houses, &c.

The objections to this system, besides the primary one of its being an open circuit system, are these: The incoming signal, while it leaves a temporary record on the paper band, gives no audible alarm. The record is evanescent—the characters fading away entirely within a few moments, and if the paper be not kept constantly moistened with the chemical preparation, no record, whatever, is made. This, while being no serious objection, if the paper were in constant use, is one which renders it almost worthless for Fire Alarm Telegraphy, where the recorder is sometimes not started for several days. No automatic repeater is offered with the central office apparatus, entire dependence being placed in the cylinder repeater before described. Again, the whole system is entirely experimental, having heretofore been used only for summoning messenger boys from central office in the city of New York to private houses. They have exhibited, however, a working model of a repeater, from which it is proposed to construct something to meet our demands.

Mr. Stephen Chester of New York makes a proposal to construct the Police and Fire Alarm Telegraph for the city, in accordance with specifications, and in addition "to furnish in each box a device to facilitate and render possible the discovery of breaks, faults, or imperfections in lines or boxes, through the agency of the testing apparatus described in the specifications, and to locate the same with a degree of accuracy, unattainable when such device is not used." He also proposes to place in each engine house Pierce and Griswold's Annunciators, also fifteen miles more of wire if necessary, also galvanometers permanently organized to show strength and condition of batteries at all times, also two annunciators in the central office to indicate in-coming and out-going signals, also a standard clock or time piece with electro-magnetic attachment, upon which will be recorded the exact time at which any signal is received and sent out, also a supplemental repeater for great bell lines or other purposes, and finally to make certain improvements in the striking machinery of "Big Sam," according to a working model exhibited to me. The amount for which he proposes to do the work is fifty-four thousand dollars.

The distinctive feature of the signal-box of the Chester system is the non-interference device, which is intended to prevent confusion in case of two alarms of fire occuring within the limits of one circuit, necessitating the pulling of two boxes simultaneously. The device is as follows: There are two key-holes in the outer door of the signal-box—a small one near the edge of the door for unlocking it, and a larger one near the centre of the door. A peculiarily shaped key is inserted in this key-hole and turned completely around, by which the weight running the clock-work is raised, a spring then forces the key out of the hole and a metalic plate drops into a prepared shoulder, covering the key-hole. No further access to that box can be had until the shield is removed, which is done

after the alarm is finished, by throwing over the wire a powerful current from additional batteries at the central office. When any box commences running, the shield of every box in the system drops down and so remains until removed as above described. These boxes are nowhere in actual use, and I should be loth to recommend, without such practical test, anything upon which so much depends. If the current should fail to lift the shield on any box it would be rendered useless for further alarms until the fact had been discovered and remedied, and it could not be discovered except by ocular examination. I do not approve of the device. The automatic repeater comprises a weight-driven train of wheels, controlled by a magnet, which requires the opening and closing of the circuit before it starts the train. This magnet is opened or closed by any of the relay magnets connected with the signal-box lines, so that if a signal-box be started, the relay on that circuit, by opening and closing, communicates the alarm through the mechanism of the repeater to the alarm circuit. An attachment is made to this by means of a punched paper slip, by which a slower alarm is at the same time sent out to large bells. There are many weak points in this repeater not necessary to mention. One grave defect, however, is that the breaking or other accidental interruption of any of the lines would entirely disable the instrument for sending out alarms. Another is that the non-interference feature being confined entirely to the box, the repeater would be left entirely to the mercy of any alarm that might be communicated.

The central office repeater which Mr. Chester proposes to furnish has never been constructed, but he has furnished me with drawings of one comtemplated, described as follows: In a box are three disclosures in horazontal line for units, tens and hundreds. Brass plates slide perpendicularly behind these

holes, having upon them numbers from 0 to 9. The movement of these bars to express any number, carries a corresponding change in the internal connections so as to cause a corresponding number of breaks; therefore, the number disclosed when the machine is set in motion will be struck out. The alarms for the great bells are struck by the supplemental repeater.

Mr. Chester also proposes to arrange the automatic and central office repeaters so that three distinct and separate combinations can be made, viz: 1st. The signals from boxes to go out instantly through automatic repeaters, to the gong alarms and signal lines rapidly, and to the great bells more slowly. 2d. The signals from boxes are received on call-bells and registers at central office and struck by the three disclosure repeater through the automatic, slow and fast as above described. 3d. The automatic repeater is disconnected entirely from the combination, and the alarms are sent out by the three disclosure repeater directly to the engine houses; the large bells, in this case, being struck by means of the supplemental repeater.

This "three disclosure" repeater, being similar in many respects to the three dial repeater in use in Boston and Buffalo, is, in my opinion, the most reliable piece of machinery offered, and presents some most excellent features. As it has never been constructed however, even in a working model, it cannot be called anything more than an experiment. In fact, the whole system offered by Mr. Chester is entirely experimental, and for this reason I think would not be approved by any member of your Commission.

Gamewell & Co. offer proposals to construct the Police and Fire Alarm Telegraph for $55,000 as per specifications, and are the only bidders who have presented for examination all the apparatus complete as designed to be furnished should their proposal be accepted.

Their signal-boxes, termed automatic non-interfering, are built in the best manner, with all the finer parts thoroughly protected from dust and damp by air-tight cases. The alarm is given by a break-wheel, revolving under platina springs, making a rubbing contact. The mechanism is easily set in motion, and once started cannot be interfered with either through stupidity or design. The boxes contain bell magnets and signal keys, and the outer door is fastened with a trap-lock. Keys once placed in the locks cannot be removed except by master keys, which are placed only in the hands of authorized persons. Every signal-box key is numbered, and the name of the person to whom entrusted is recorded—to insure against false alarms. The gong and bell strikers are powerful, yet require but small battery power to control them. The central office machinery is elaborate and complete in all its parts. The automatic repeaters are so arranged as to receive all alarms from signal-boxes and to re-transmit them over the alarm circuits without intervention on the part of the operator. They are also non-interfering—the circuit from which the alarm comes controlling the whole mechanism of the instrument, and all others being locked out at the first stroke.

The central office repeater, which is intended to be used for sending out such alarms as may be sent to the office from other sources than the signal-boxes, is a three dial instrument arranged for any desired combination, and working at a speed which may be varied at will. It is easily adjusted and set in motion, and when started completes its work without further aid from the operator. All the apparatus of Gamewell & Co. has been tested by actual service, and its value and efficiency well proved.

The proposals of Brown & Rogers, numbered one and two, and that of Watts & Co., are for the construction of the lines

alone. The proposal of Brown & Rogers, numbered three, is for the construction of the lines and furnishing a portion of the Domestic Company's machinery.

Referring again to the proposal to construct the lines alone, I beg to state that I can see no advantage to be derived from dividing the work; on the contrary, I am decidedly of the opinion that there should be no divided responsibility in the matter, as in the event of any trouble occurring in the working of the telegraph, each party would charge the other with the fault, and both might escape, leaving the Superintendent of Telegraph who recommended the system to bear the blame. I am, therefore, in favor of placing the entire work in the hands of one party, and holding him strictly responsible for the perfection of the system.

An examination of the proposals shows no great difference in price for the various systems offered. The National Company's bid is $51,750; the Michigan $53,895; the Domestic, for machinery alone, $17,500; Stephen Chester, $55,000; and Gamewell & Co. $55,000, but neither the National, Michigan nor Domestic, offer to furnish such central office machinery as experience in Fire Telegraphy has proven to be essential to a perfect system. In the systems of the last named three companies, the entire apparatus is placed upon a single wire line, and where but a limited amount of apparatus is required, this may answer, but in a large city like Baltimore it is of the utmost importance that the apparatus should be placed upon many circuits so that no considerable portion of the city may be left dependent upon a single line.

I believe I fully appreciate the importance of a wise decision in awarding the contract for the construction of the Fire Telegraph. The requirements of a complete and perfect system are many, and the experience of over twenty years has indi-

cated what those requirements are. There is no need to grope in the dark. Many competitive examinations of fire alarm apparatus have been made by the most skilled electricians and leading experts of the country; and such examinations I find have invariably resulted in awarding to Gamewell & Co. the palm of merit for their apparatus. Their system has been endorsed by Prof. Page, Prof. Rogers, Prof. Barker, Prof. Henry, Dr. Curren, Frank L. Pope, Esq., Capt. Howgate of the U. S. Signal Bureau, Gen. Stager and Gen. Lefferts of the W. U. Telegraph Company, and many others. F. L. Pope, who stands among the foremost electricians of this country, and is a member of the London Society of Telegraph Engineers, gives the following testimony:

"I, Frank L. Pope, being duly sworn, depose and say that I am an electrical engineer, and have been such for fifteen years last past, and that I am the author of a work on telegraphy entitled 'Modern Practice of the Electric Telegraph.' I am at present engaged in the principal office of the W. U. Telegraph Co., in the city of New York, as electrical expert and adviser, and am also engineer of the Electric Railroad Signal Company of N. Y. I consider myself perfectly familiar with fire alarm telegraphy in all its workings, requirements and details.

"I have examined and am familiar with the Fire Alarm Telegraph now in use in New York and other cities, which have been erected in accordance with letters patent owned by Gamewell & Co., of New York, and known as the 'American Fire Alarm Telegraph,' and also as the 'Gamewell System.' The patents granted many years ago to Channing & Farmer lie at the foundation of this system, but since the date of the original invention a great number of important details and improvements have been brought out by others from time to

time, the patents for which have been acquired by Gamewell & Co., and the inventions embraced in them incorporated into the general system, thereby increasing its effectiveness and practical value to a point which leaves scarcely anything to be desired. Taking into consideration not only the great number of conditions which must be fulfilled in order to render the system of practical value, and their peculiarly difficult character, and having an intimate knowledge of the whole history of the electrical and telegraphic invention, both in this country and abroad, I have no hesitation in saying that I consider the American Fire Alarm Telegraph, as now perfected, as the most ingenious, effective and perfectly successful adaptation of the principles of electro-magnetic telegraphy which has ever been made in any country, or for any purpose whatever.

"The following are some of the essential requirements of a Fire-Alarm Telegraph System:

"1. The signalizing stations must be distributed throughout the territory to be protected, and so arranged as to be quickly accessible to any proper person desiring to give an alarm.

"2. The signaling apparatus must be capable of transmitting an instantaneous, definite and undeniable alarm, without the possibility of error or derangement, however unintelligent or excitable the signalizer may be.

"3. The alarm must be transmitted instantly and simultaneously to as many different points as circumstances may render necessary, without the possibility of this transmission being interfered with by the operations of other signalizers, or by ordinary accident to the conducting wires.

"4. It being required in most cases that the alarm should be given instantly to as large a number of people as possible, as well as to the officers of the Fire Department, it is essential that apparatus should be provided for striking the largest

tower bells, as well as engine house gongs or ordinary signal bells, and this should be done by means of a moderate, constant and inexpensive battery power.

"5. The battery for operating the entire system should all be situated at one convenient point, where its working condition can be readily observed, and its wants reasonably attended to.

"6. In case of the interruption or breakage of the wires, or failure of the battery, the apparatus should be arranged so as to instantly give a special alarm which cannot be mistaken for a fire signal, but will serve to call the attention of the proper official so that the difficulty may be removed.

"I have no knowledge of any system that, in my judgment, fulfils these varied requirements with anything like the completeness and perfection of the American Fire Alarm Telegraph.

"FRANK L. POPE."

Subscribed and sworn to before me this 26th day of July, 1875.

B. S. CLARK,

Notary Public, N. Y. City and County.

I think we can make no mistake in following a path so clearly shown and proven by others to be one of absolute safety; I would therefore unhesitatingly recommend that a contract be made with Gamewell & Co., of New York, in accordance with the plans and specifications already submitted, and present in conclusion, a brief summary of my reasons for so recommending.

Gamewell & Co. are the only parties who have made the business of constructing and selling Fire Alarm Telegraphs a specialty for many years.

They are the only parties thoroughly endorsed by competent judges as possessing complete and perfect apparatus.

They are the only parties who have placed before us, or who have in actual service, the identical apparatus they propose to furnish to the City of Baltimore, tested by actual use and found perfect and satisfactory in all details.

They are the only parties whose history as relates to the manufacture of Fire Alarm Telegraph machinery, is identified with the history of the Telegraph itself, and finally, they are the only parties about whose patent rights there is no question or contest.

I am, gentlemen,

Yours very respectfully,

J. F. Morrison,

Sup't Police and Fire Telegraph.

The contract was then awarded to Gamewell & Co., of New York, under the firm name of Gamewell, Gardiner, Burns and Gamewell, and executed on the third day of January, 1877, stipulating that the system therein agreed upon should be completed and ready for service within six calendar months from the date of agreement.

On the 30th of June—no steps of any consequence having been taken by Gamewell & Co. to build the telegraph, and the time specified in the agreement having nearly expired—I wrote them asking if they would complete the telegraph if their time was extended. To this I received the following reply:

J. F. Morrison, Superintendent
Fire Telegraph, Baltimore, Md.

Sir:—In reply to your favor of 30th ulto., asking if we would complete our contract by the time specified, we are

pained to say that we find ourselves unable to fulfil the said contract, and have no reason to believe that we could do so even were an extension of time granted to us.

Very respectfully,

New York, July 3d, 1877. GAMEWELL & Co.

Within a few days after the receipt of Gamewell & Co's communication, I received the following letter:

OFFICE OF THE GAMEWELL FIRE ALARM TELEGRAPH CO.
Room 28, No. 21 Park Row.

NEW YORK, July 6, 1877.

J. F. Morrison, Superintendent
Fire Alarm Telegraph, Baltimore, Md.

SIR:—This Company having become the owners by assignment from Gamewell & Co , of this city, of the several letters patent under which they have been heretofore engaged in erecting Fire Alarm and Police Telegraphs in the United States, and understanding that the contract made between Gamewell & Co. and your city, under date of January 3d, 1877, has expired by its own limitation, begs respectfully to submit to your city the following proposition:

That it will erect and put in operation in your city a Fire Alarm and Police Telegraph in accordance with the specifications contained in the draft of contract which will be forwarded to you by to-morrow's mail.

You will observe that we are prepared to complete the said telegraph, and have the same in operation within sixty days from the date of contract.

Very respectfully, &c.,

L. G. TILLOTTSON, *President.*
By ARDIN S. FITCH, *Secretary.*

All of these communications, together with other documents establishing the legality of the corporation offering to build telegraphs under the name of the Gamewell Fire Alarm Telegraph Company, were placed by me in the hands of the Mayor, Comptroller and Register, who after submitting them to the scrutiny of the law officers of the city, instructed me to make a contract with the new company. This I did upon the basis of the specifications contained in the original contract with Gamewell & Co.

This contract which was dated on July fourteenth, was formally ratified and approved by the Mayor, Comptroller and Register on the twenty-fifth day of the same month. The work was pushed forward as rapidly as possible, but it was not until the sixteenth of November that I was notified by the Superintendent of the Company of its completion.

By direction of His Honor the Mayor I then made a final inspection and working test of the system—found it perfect in all its details, and according to the specifications under which the contract was made, I so reported to the Mayor, and recommended its immediate acceptance by the City. The Mayor, Comptroller and Register then appointed a committee of experts composed of Robert Stewart, Esq., Superintendent of Baltimore and Ohio Railway Telegraph, and Archibald Wilson, Jr., Esq., Manager of the Western Union Telegraph Company of this City, to again inspect the work. A thorough inspection of the whole work, including the lines, machinery, batteries and all engine house, police station and other apparatus and appurtenances, was made by these gentlemen in company with the Comptroller, Register and City Council Committees on Fire Department, after which they submitted the following report:

BALTIMORE, MD., November 29th, 1877.

Honorable George P. Kane,

Mayor of Baltimore.

SIR:—Agreeably to your request we have made an inspection and examination of the new Police and Fire Alarm Telegraph erected in the City of Baltimore, under a contract with the Gamewell Fire Alarm Company, and beg respectfully to submit the following report:

We have examined the contract between the Gamewell Fire Alarm Telegraph Company and the City of Baltimore in all its details, and after a close inspection of the finished work, have found it well and thoroughly done in accordance with its specifications and agreements. We would especially mention the close adherence to the contract in details, which are frequently omitted or carelessly passed over in such construction. The battery-room is one of the most perfect in the country, particular attention having been paid to insulation, as well as to neatness and utility in its construction and equipment. The machinery, comprising switches, call-bells, repeaters, annunciators, galvanometers and many other important features, which were manufactured by Moses G. Crane, of Boston, Mass., and the registers by the Messrs. Watts & Co., of Baltimore, and are models of perfect workmanship, were placed in position in the respective offices under the personal supervision of J. N. Gamewell, assisted by Messrs. Rogers and Gardiner, and thoroughly tested and found to be in good and perfect running order. The building of the lines, including the furnishing and setting of the poles, stringing of wire, and other details connected therewith, was performed by Messrs. Watts & Co., of Baltimore, under the direct supervision of Superintendent Morrison, and insures a reliable and durable line of telegraph

for the purposes required. The wires were placed on poles, except in some instances, where the topography of the city rendered it absolutely necessary to use house-tops. Without specifying further in detail the work which it has been our province to inspect, we desire unqualifiedly to state that in our opinion the City of Baltimore is in possession of the most perfect system of Fire Alarm Telegraph now in operation, and for infinitely less money than has been expended elsewhere.

We desire also to testify to the self-evident fact that the successful completion of this perfect and valuable work is due in a great measure to the personal attention and skill as a telegraphic engineer of the Superintendent, J. F. Morrison. During our telegraphic experience, we have been familiar with various plans for securing reliable and effective telegraphic signaling, and we concur in the opinion that the present system constructed under the Gamewell patents is of peculiar value for fire and police purposes, and such is the general opinion of all experts in this branch of the service.

In conclusion we congratulate the citizens of Baltimore on the added security which is given them by this most valuable and indispensable adjunct to our present excellent Police and Fire Departments.

Signed,

ROBERT STEWART,
Sup't Telegraph Balto. & Ohio R. R. Co.

ARCHIBALD WILSON, JR.,
Manager W. U. Telegraph Co.

This report was made on the twenty-ninth day of November, and the telegraph formally accepted and paid for by the proper city officers.

As this report is a matter of record so far as relates to one of the most important departments of the municipal government—the Fire Department—I beg respectfully to submit, as briefly as possible, a condensed description of the Fire Alarm lines and apparatus as they exist to-day.

The wires are of galvanized iron, No. 9, Stubb's English gauge, every joint of which is thoroughly made and soldered, and comprise an aggregate length of one hundred and sixty-nine miles. This of course applies only to outside line wires. The wire used in engine houses, police stations, department officers' dwellings and elsewhere is No. 14 copper, thoroughly insulated, or kerite covered compound wire, and is not reckoned in the aggregate. The outside lines are placed upon glass insulators, screwed on locust pins, which are set in cross-arms of squared timber, three by four inches, and of various lengths suitable for the varying number of wires which they carry in different localities. These cross-arms are securely bolted to posts of locust timber ranging from thirty to seventy-five feet in length, as the topography of the city requires. The total number of poles, exclusive of guy poles, is fourteen hundred and eighteen.

The whole system is divided up into twenty-eight circuits or metallic loops, which leave the City Hall in one direction and return by another, so that in no instance do both sides of the same loop run upon the same poles. Two entire circuits, Nos. 1 and 2, run upon trestles placed upon house-tops, as do portions of one or two other circuits, where from the presence of trees or the peculiar condition of the streets it was found impossible to set poles. These wires connect one hundred and fifty of the Gamewell Automatic Fire Alarm boxes, latest style, with the central office at the City Hall, and are so arranged that alternate boxes are upon different circuits, so that

if a box fails to respond by reason of its wire being down, or for other cause, the next neighboring box is ready to give the alarm.

The battery rooms are fitted up in the basement with all the appliances which experience could suggest. Heavily framed stands coated with asphalt and raised three inches from the floor upon glass feet, carry the batteries, which comprise a total of ten hundred and eighteen cells. The floors of the battery rooms are of North Carolina pine, heavily painted with asphalt. Lead lined sinks, supplied with hot and cold water, are placed in the outer room for the purpose of washing the batteries when taken down to be cleaned.

The central office is immediately over the outer battery room, and is fitted up with walnut and black marble counters, running around the four sides of the room, upon which the apparatus is placed.

This apparatus consists of a switch-board composed of a black Belgian marble slab set in a handsomely ornamented frame of black walnut. Along the top of the slab are twenty annunciators corresponding with the twenty signal circuits, and upon the first stroke of an alarm the number of the circuit upon which the box is located which is sending in the alarm drops into place and is shown. At the base of the switch-board are placed twenty-eight small galvanometers organized in the circuits, which show either the slightest variation of battery power, or any trouble upon the lines arising from breaks, crosses, or ground contacts. Upon the counter on the west side of the room are the magnets, twenty-five in number, handsomely enclosed in plate glass and nickel cases. Immediately in front of the cases are Morse keys, connected in the various circuits for testing and other purposes. Directly over the cases and running around the west and north sides of the

room is a narrow black marble shelf supporting the call-bells, upon which alarms and special calls are received. These bells are nickel plated and set upon rosewood bases, and are twenty-six in number. Morse embossing registers, of which there are five cases containing five registers each, to record in-coming and out-going alarms, occupy the counter on the north side. These are also encased in plate glass, with nickel work frames. Upon the long counter, on the east side, running nearly the entire length of the room, are placed the repeaters and police dials.

The repeaters comprise two of Gamewell's automatic and one central office or " Three Dial " repeater.

The automatic repeaters are instruments for striking out alarms automatically directly from the street boxes. When the mechanism of any one of the street boxes has been set in motion by pulling down the lever, which is seen immediately upon opening the box, the bell within the box strikes the alarm number of the box. The strokes are made by the alternate opening and closing of the circuit as the small fingers of the straight springs connected with the line press upon the teeth or drop into the interdental spaces of the break-wheel inside the inner case. Each make and break of the circuit thus described is communicated through the switch-board to the automatic repeaters, and by them transmitted to all the engine houses, police stations and other points desired to be reached, in the integral part of a second. It does yet more, it sends the alarm back upon all the box circuits, and thus throwing the non-interference features of each box into play, provides positively against interruption from any other box which might be started in the meantime.

The " Three Dial " or central office repeater is used for sending out alarms when the automatic repeaters are switched out

of circuit. As its name implies, its main apparent features are three dials similar to those of clocks, upon which are inscribed numbers from one to twelve. There are also two hands like those of a clock. When sending out an alarm by means of this instrument the operator has only to set the short hand of the left hand dial at the unit of the number, that of the second at the tens, and that of the third or right-hand dial at the hundreds, press back a small lever at the base of the left-hand dial, which releases the moter weights and springs, and the alarm is struck out one, two or five times as the operator may desire, without further intervention on his part.

The engine houses and police stations are supplied with electro-mechanical gongs, the former eighteen and the latter nine inches in diameter. The engine houses are also supplied with small four inch call-bells with key attachments for special calls. Call-bells of a similar kind, except that they have no keys, are placed in the sleeping rooms of all the department officers. By an attachment at the central office all alarms of fire are sent through the circuits carrying these call-bells.

The following alarms of fire were sent over the lines of the Police and Fire Alarm Telegraph during the last past fiscal year, and the succeeding two months before the commencement of the new fiscal year:

November, 1876, seven alarms; December, sixteen alarms; January, 1877, twenty-five alarms; February, fourteen; March, twenty-four; April, fifteen; May, twenty; June, eight; July, eighteen; August, twelve; September, fourteen; October, ten; November, twelve, and December, twelve; making a total of two hundred and eleven alarms.

The poles and wires of the old telegraph still remain standing, except where they occupied the same streets with the new system, in all of which cases I cut them down. I consider

them in the same class with other old material belonging to the Fire Department, to be disposed of as your Hon. Board may judge best.

During the past fiscal year the maximum of good service was reached with the old telegraph system, not a single false alarm was sent over the wires, (if we except one by the American District Telegraph Company ;) and in spite of their dilapidated condition, no serious delays occurred in sending alarms to the Fire Department. This of course was due to the constant care and watchfulness of the employees of the Police and Fire Alarm Telegraph, aided by the officers of the Police force. Too much commendation cannot be given the latter for the carefulness of their watch for and prompt report of any troubles occuring to the lines and machinery of the Telegraph. Hardly a day passed but that some fault was discovered and promptly reported by the Police, and of course promptly corrected by the Telegraph employees.

Arrangements were made with the American District Telegraph Company on the 24th of December, 1876, to utilize their fire service. Since that time we have had from them eighteen alarms of fire, only one of which was false. Immediately after this false alarm was sent in, Superintendent McCulloh, of that Company, adopted such effectual measures that no more false alarms have been received over their wires.

This is a good record, and I consider their service of considerable value as an adjunct to the Fire Telegraph.

Frequent applications have been made to me by members of the city press to adopt some method by which such news as the Police Department might consider proper for publication should be telegraphed from the different police stations to some central point accessible to the reporters and other attaches of the press.

In this connection I beg to refer your Honorable Board to page 16 of my last annual report, in which occurs the following suggestion :

"The Police Telegraph is operated at the station houses by officers of the Police Department, whose duties are prescribed by the Marshal of Police by direction of the Police Commissioners. The only feasible plan suggested to my mind, therefore, is to make an arrangement whereby the Police Department would instruct its proper officers to forward from each station house by telegraph to the central office, or to the office of the Marshal of Police, such station house records as are permitted to be published in the newspapers. These reports to be accurately transcribed in a book kept for that purpose, to which members of the press might have free access. I have no doubt that a suggestion from His Honor the Mayor, looking to this result, would receive courteous consideration from the Board of Police Commissioners."

I can only add in this connection that with the present slow cumbrous system of dial telegraphy, that this would entail a considerable amount of extra labor upon the Police Department, and could only be made easily available by the substitution of the Morse system throughout the Police Department, which, however, could be done at a very small expense. Inquiries have been made by the police officials as to the feasibility of introducing telephones as a means of communication between the station houses and police headquarters.

I beg respectfully to state, the introduction of the speaking telephone for the purposes named is entirely feasible, and would open up a simple, prompt and easy method of communication between the points named. The introduction of the telephone has been so decided a success, and its use among business men is becoming so universal, that its success as a means of

communication between points not too distant, is no longer problematical.

The Marine Hospital telegraph, owing to changes in the grades of the streets south of the railway terminus on Light street, and the inferior quality of the poles used from the bridge to the Hospital, necessitates the entire reconstruction from the point first named. This would cost about four hundred dollars.

In addition to the new Police and Fire Alarm Telegraph and the Marine Hospital line, we have now in charge of this Department a line of telegraph for the Water Department, connecting their stations and offices from Lake Roland to their new building on North street. This line is about seventeen miles long, and carries eight dial instruments. The line was constructed at a very small cost, and now that the employees of the Water Department have become proficient in the use of the instruments, it is accepted as a very valuable method of communication by the officers of that Department.

During the month of December, 1877, I constructed two loops, connecting respectively the bells of No. 1 Engine house on Paca street, and No. 3 Engine house on Lombard street, with the apparatus at the City Hall.

During the riots last summer I built wires connecting police headquarters with the two great railways, and also run in a connection with the United States Signal wire, which upon an emergency could be used at the City Hall to communicate with the War Department at Washington.

All of which is respectfully submitted.

J. F. Morrison,

Superintendent of Telegraph.

ANNUAL REPORT

OF THE

Board of Health,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE

FOURTEEN MONTHS ENDING DEC. 31, 1877.

Officers and Members of the Board of Health

OF THE

CITY AND PORT OF BALTIMORE,

For the Year 1877.

Commissioner of Health,

JAMES A. STEUART, M. D.

Assistant Commissioner of Health,

A. E. SMYRK.

I. M. MOHLER, *Secretary.* WM. H. BOSLEY, *Clerk.*

V. B. HINES, *Assistant Clerk.* F. W. RABORG, *Clerk to Registrar.*

Sanitary Inspectors,

ROBERT JACKSON, GEORGE E. TAYLOR,

PETER LYONS, WILLIAM CARROLL,

E. WEINMAN.

Messenger,

MONTGOMERY LAWRENCE.

Street Superintendents,

ROB'T H. WELLS, *First Dist.* MICHAEL FAGDEN, *Third Dist.*

JNO. H. COULTER, *Second Dist.* WILLIAM HISSEY, *Fourth Dist.*

HENRY LANCASTER, *Fifth Dist.*

Inspectors of Sewers,

HENRY PAFF, *Eastern Dist.* JOHN W. LEE, *Western Dist.*

Superintendents of City Public Cemeteries,

CHAS. STREEPER, *Eastern Dist.* M. C. H. PERRY, *Western Dist.*

Resident Physician at Marine Hospital,

E. LLOYD HOWARD, M. D.

Vaccine Physicians.

First and Second Wards,

JAMES F. McSHANE, M. D., 68 S. Broadway.

Third and Fourth Wards,

CHAS. M. MORFIT, M. D., 83 E. Baltimore Street.

Fifth and Sixth Wards,

E. G. WALLS, M. D., 181 E. Monument Street.

Seventh and Eighth Wards,

S. W. HUNTER, M. D., 111 Greenmount Avenue.

Ninth and Tenth Wards,

F. W. GERMON, M. D., 57 N. Paca Street.

Eleventh and Twelfth Wards,

W. B. MUNNIKHUYSEN, M. D., 214 N. Howard Street.

Thirteenth and Fourteenth Wards,

HENRY DARLING, M. D., 143 Mulberry Street.

Fifteenth and Sixteenth Wards,

S. A. BELL, M. D., Cor. Lee and Sharp Streets.

Seventeenth and Eighteenth Wards,

J. E. HARRINGTON, M. D., 321 Light Street.

Nineteenth and Twentieth Wards,

A. H. SAXTON, M. D., 543 Lexington Street.

Report of the Commissioner.

REPORT.

HEALTH DEPARTMENT—CITY HALL,

BALTIMORE, MD., January 4, 1878.

To the Honorable the Mayor

and City Council of Baltimore.

GENTLEMEN:

I have the honor again to present herewith the annual report of the Health department. According to a resolution of the City Council, the months of November and December, 1877, have been added to the fiscal year ending October 31st, 1877, thus including a period of fourteen months, and bringing the report up to the end of the year 1877.

With sincere gratification I am able to say, that during the period above mentioned, our city has been free from epidemic disease, and that whilst the death rate will be found to be slightly in excess of the previous year, it will compare favorably with most of the larger cities of this and other countries.

The appended tables will show the ratio of mortality in our own as well as a number of the largest cities of the civilized world:

TABLE OF DEATH RATES

In Cities in the United States during the year 1876, *prepared from Reports received from their Health Authorities.*

CITIES.	STATES.	Population according to Census 1870.	Estimated Population.	Death Rate per 1,000 Inhabitants.
New York	New York	942,292	1,046,037	27.87
Philadelphia	Pennsylvania	674,022	825,000	22.93
Brooklyn	New York	396,099	527,830	23.31
St. Louis	Missouri	310,864	500,000	21.45
Chicago	Illinois	298,977	420,000	20.41
Baltimore	Maryland	267,354	355,000	20.79
Boston	Massachusetts	250,526	346,000	23.84
Cincinnati	Ohio	216,239	280,000	20.39
San Francisco	California	149,473	300,000	18.89
New Orleans	Louisiana	191,418	215,000	29.10
Washington	Dist. Columbia	109,190	160,000	26.40
Louisville	Kentucky	100,753	150,000	18.50
Cleveland	Ohio	92,829	162,000	19.90
Detroit	Michigan	79,577	120,000	15.31
Jersey City	New Jersey	82,546	127,500	21.64
Milwaukee	Wisconsin	71,440	110,000	18.95
Providence	Rhode Island	68,904	103,000	14.61
Richmond	Virginia	51,038	75,000	21.98
New Haven	Connecticut	50,840	60,000	20.43
Charleston	South Carolina	48,956	56,540	35.58
Toledo	Ohio	31,984	50,000	14.80
Memphis	Tennessee	40,226		
Reading	Pennsylvania	33,930	40,109	24.68
Galveston	Texas	13,818	43,557	18.19
Nashville	Tennessee	25,865	31,501	32.18
Norfolk	Virginia	19,229	23,710	23.14
Knoxville	Tennessee	8,682	14,927	18.73
Savannah	Georgia	28,235		34.14

TABLE OF DEATH RATES

In Cities in the United States during the year 1877, *prepared from Reports received from their Health Authorities.*

CITIES.	STATES.	Estimated Population.	Deaths 1877.	Under 5 Years	Death per 1,000 of Population.
New York	New York	1,077,228	26,203	12,307	24.32
Philadelphia	Pennsylvania	850,856	16,004	6,417	18.81
Brooklyn	New York	527,830	11,362	5,560	21.53
St. Louis	Missouri	500,000	5,660	2,391	11.12
Chicago	Illinois	439,976	8,026	4,512	18.24
Baltimore	Maryland	360,000	7,936	4,030	22.04
Wilmington	Delaware	40,000	752	325	18.80
Washington	Dist. Columbia	160,000	4,103	1,856	25.64
Norfolk	Virginia	23,000	562	251	24.43
Richmond	Virginia	77,500	1,649	738	21.28
Charleston	South Carolina	56,540	1,813	806	32.06
Mobile	Alabama	40,000	935	327	23.38
Knoxville	Tennessee	13,250	185	65	13 96
Milwaukee	Wisconsin	122,980	2,243	1,244	18.24
Cincinnati	Ohio	280,000	4,428	1,807	15.81
Cleveland	Ohio	162,000	2,903	1,249	17.92
Pittsburg	Pennsylvania	145,000	3,406	1,758	23.50
New Haven	Connecticut	60,000	1,182	493	19.70
Boston	Massachusetts	353,000	7,284	2,989	20.34

THE DEATH RATE

IN FOREIGN COUNTRIES AND CITIES, COMPARED WITH THE DEATH RATE IN AMERICAN CITIES.

DEATHS PER THOUSAND INHABITANTS.

London	24.25	in every 1000	inhabitants.
Edinburg	18.75	"	"
Glasgow	25.25	"	"
Dublin	26.00	"	"
Portsmouth	23.00	"	"
Norwich	19.00	"	"
Wolverhampton	26.75	"	"
Sunderland	25.00	"	"
Sheffield	25.75	"	"
Birmingham	22.25	"	"
Bristol	21.25	"	"
Liverpool	27.25	"	"
Salford	38.75	"	"
Oldham	32.50	"	"
Bradford	27.00	"	"
Leeds	23.75	"	"
Hull	23.25	"	"
Newcastle-upon-Tyne	20.25	"	"
Leicester	24.75	"	"
Manchester	28.50	"	"
Nottingham	21.00	"	"

OTHER FOREIGN CITIES

AT MOST RECENT DATES, PER THOUSAND INHABITANTS.

Paris	29.00	per 1000	inhabitants.
Rome	29.00	"	"
Vienna	26.00	"	"
Brussels	21.00	"	"
Berlin	25.00	"	"
Hamburg	23.00	"	"
Calcutta	27.00	"	"
Bombay	23.00	"	"
Madras	40.00	"	"
Amsterdam	28.00	"	"
Rotterdam	28.00	"	"
The Hague	29.00	"	"
Christiana	22.00	"	"
Breslan	28.00	"	"
Budapesth	38.00	"	"
Turin	24.00	"	"
Alexandria	47.00	"	"
Copenhagen	23.00	"	"
Munich	34.00	"	"
Naples	30.00	"	"

I refer with much pride to the able report of the Assistant Commissioner of Health, appended to this, which clearly shows the stupendous amount of work done by this department since the last report made in November, 1876. A careful reading of this report will demonstrate that a much larger amount of work has been done by the Health Department during the last fiscal year, at a less cost than in many previous years.

The sanitary work of the Department has been most satisfactorily accomplished, and but few of the great works undertaken by the Department remain unaccomplished.

Notably one of these is the establishment of a morgue in the City of Baltimore. I have on several previous occasions respectfully urged upon the City Council the absolute necessity for a place of deposit for unknown dead bodies, where time and opportunity may be given for identification. During the past three years sixty-four (64) bodies have been buried by the City of Baltimore of unknown persons, whose friends, (if they had any,) were deprived of the opportunity for recognition, and several very painful occurrences have transpired which would otherwise have been avoided. Almost every large city in this and other countries have for years been provided with a morgue, and its advantages exemplified almost daily. I respectfully urge upon the City Council the necessity of an early remedying of this great need.

Some means should also be provided for the disposal of the night soil which is daily removed from the vaults of the city, and which—now that the dumping grounds have all been closed by injunction—is being deposited wherever a place can be found in the surrounding suburbs of the city to receive it.

I would respectfully suggest that the Health Department be authorized to advertise for proposals for the removal of night soil, by contract, to a point beyond six miles from the corporate

limits of the City of Baltimore, and that such legislation be effected as will compel all those engaged in the business to deliver to such contractor all night soil removed from privy vaults within the city limits, and that such removal be done either by water or rail in a cleanly and odorless manner.

The contract which was effected during the summer of the past year for the removal of the garbage, has been carried out to the entire satisfaction of the Board of Health, and has proved not only an economy to the city but a great blessing to the residents of the county surrounding the city. The tables appended show the amount thus transported.

It should here be remarked that the garbage system of Baltimore City is the most complete and generally satisfactory of any other city of which I have any knowledge, and is so acknowledged by all who have observed it.

The Vaccine Physicians have, as shown by their reports, performed their duties to my entire satisfaction, and to their diligence and care may justly be attributed the entire absence of small-pox from our midst for the past two years. I have long thought, and on several occasions so stated, that the number should be augmented so as to have one for each ward, instead of, as now, one from each two wards. This would greatly facilitate the sanitary work which they are henceforth to be required to perform.

I earnestly renew my recommendation of repaving those thoroughfares with Belgian blocks which are now paved with cobble stones.

There is no form of pavement so conducive to cleanliness, health and economy, as the Belgian block.

By the report of the Marine Hospital Physician, (Dr. E. Lloyd Howard,) appended herewith, it will be seen the amount of work done at that important post during the past year, and

we have reason to congratulate ourselves that it is in the hands of so faithful and efficient an officer. I heartily endorse his recommendations and commend them to your attention.

The estimated amount that will be required by the Health Department, for the ensuing year, is as follows:

Street and garbage	$169,000 00
Contract for removal of garbage	13,500 00
General health	12,000 00
Nuisance and sewers	6,500 00
Salary account	17,700 00
Cleaning cesspools, "Public Schools,"	2,500 00
Marine Hospital	15,000 00
	$236,200 00

Very respectfully,

Your obedient servant,

JAMES A. STEWART,

Commissioner of Health.

BIRTHS RETURNED.

1876.	November	558	
"	December	593	
1877.	January	630	
"	February	561	
"	March	568	
"	April	410	
"	May	465	
"	June	597	
"	July	660	
"	August	572	
"	September	598	
"	October	635	
			6,847
"	November	525	
"	December	387	
			912
			7,759

TABLES.

ANNUAL REPORT OF DEATHS

In the City of Baltimore, from November 1st, 1876, to October 31st, 1877.

DISEASES.	Nov. '76.	Dec. '76.	Jan. '77.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Total.
Abscess	2	1	2	1	1	2	3	4	1	3	.....	1	21
" Lungs	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Abortion	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Addison's Disease	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
Albuminuria	1	3	2	.....	.....	.....	2	1	.....	2	3	.....	14
Amputation	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Anæmia	1	1	.....	1	1	.....	.....	.....	1	.....	.....	.....	5
Aneurism of Aorta	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
" Heart	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Angina Pectoris	1	1	.....	.....	.....	1	2	.....	1	.....	1	1	8
Apoplexy	14	11	9	9	9	6	12	7	7	9	13	9	115
Apthæ	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1
Arthitis	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	2
Ascites	.....	.....	1	.....	.....	1	.....	1	4	.....	.....	.....	7
Asphyxia	2	2	1	.....	3	2	.....	1	.....	.....	1	.....	12
Asthma	2	.....	1	4	.....	2	1	1	.....	.....	.....	2	13
Asthenia	4	10	1	5	2	4	6	13	5	2	5	9	66

Atresia Ani	1						1		1				3
Atrophy		1	1	4				2	2	1	2	1	14
Atelectasis Pulmonum		1		1				2	2	1	1		8
Bright's Disease	6	8	6	3	12	5	4	9	2	4	10	6	75
Burns	4	6	5	3	5	2		1	1	1	1	5	34
Capillary Bronchitis	2	10	2	12	8	2	9	4	1	2	4	2	58
Carbuncle	1			1						1	1		4
Cancer, Abdomen			1										1
" Spleen								1					1
" Mouth		1							2			1	4
" Larynx											1		1
" Pylorus				1									1
" Face	1	1				2		1					5
" Diffused	2	2		3	3	1		1	2	3	2	1	20
" Breast	2	2	3	1	1	1	2	4		1	3	1	21
" Liver			1	2	1			1				2	7
" Mesentery									2				2
" Lower Jaw		1											1
" Rectum											1		1
" Eye											1		1
" Leg		1							1				2
" Uterus	1	5		2	1	2	5	4	3	2	4	4	33
" Stomach	2		2	2	7	1	6	4	5	3	5	3	40
Calculus	1												1
Caries of Cranium						1							1
Casualties	3	2	1	1	5	4	2	3	6	4	7	5	43

REPORT OF DEATHS—Continued.

DISEASES.	Nov. '76.	Dec. '76.	Jan. '77.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Total.
Child Birth	1		2	4	3	1		2	3	2	2	1	21
Cholera Sporatic								1	3				4
" Infantum		1	1	2				187	249	143	27	5	615
" Morbus	1							2	6	2	5		16
Cirrhosis of Liver		3	1	4		2	1	1			3	4	19
Colitis			1										1
Concussion of Brain		2	1	5				2		2	1		13
Congestion of Brain	5	2	5	4	8	5	5	10	12	4	13	2	75
" Liver			1										1
" Lungs	3	4	3	4	11	2	7	5		1		1	41
" Bowels										1			1
" Stomach								1					1
Consumption of Bowels		2							2			1	5
" Lungs	89	116	86	99	136	100	76	95	60	85	87	71	1100
Convulsions	20	29	16	23	26	33	25	37	28	23	28	21	309
" Pueperal	1	2			1			2	1	1	2		10
Croup	10	13	6	13	9	6		7	4	3	18	17	106
Cyanosis	1	1	3		3	2	2	1	1	3			17

Colic			1										1
Cellulitis Pelvic		1											1
Chorea			1	1					1	1			4
Cystitis	1				2		2		1				6
Caries Jaw			1										1
Disease of Cord	1												1
" Brain							1						1
" Heart	15	29	31	25	20	25	16	20	14	13	26	15	249
" Spine	2	1			1	3		1	1	1		1	11
Dyspepsia				1				1		1			3
Dropsy (Gen'l)	8	6	7	7	4	6	7	7	5	9	11	4	81
" Chest					2								2
" Ovarian											1		1
Drowned	3	4	1		2	4	6	8	2	5	7	1	43
Dysentery	1	2	1	2	3	1	1	12	8	6	6	6	49
Dentition	1	9	2	11	12	6	11	26	22	22	15	4	141
Delirium Tremens		1	1					1					3
Diabetes			1	1	1		1	1	1	1			7
Diarrhœa	2	1	3	1	4	6		16	21	12	11	7	84
Diptheria	11	21	16	13	18	12	21	27	35	41	55	65	335
Effusion of Brain				1		1							2
Embolism			1										1
Entero Colitis							2	4	4	5	1		16
Eclampsia		1											1
Endo Carditis								1	4		1	1	7
Endo Metritis									1				1

REPORT OF DEATHS—Continued.

DISEASES.	Nov. '76.	Dec. '76.	Jan. '77.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Total.
Enlargement of Prostate Gland					1								1
Epilepsy	1	1	2	1	1	2	1		1	3	1	1	15
Epistaxis						1							1
Erysipelas	5	1	2	1	2	4	1	3	2	1	1	3	26
Exopthalmic Goitre											1		1
Febro Cystic Tumor					1								1
Fever, Congestive						1					1		2
" Typho (do)	1											1	2
" Pernicious									1				1
" Bilious		1										1	2
" Intermittent	1				1	3	1				3	3	12
" Puerperal	1	1	2	1	5	4	1	2	2			1	20
" Remittent	3			1		1			3		3	1	12
" Cataarnal											1		1
" Scarlet	48	102	77	61	72	46	37	47	26	22	13	12	563
" Typhoid	13	11	11	10	10	7	6	8	16	30	42	25	189
" Typhus		1				1		1		1	6	3	2

" Continued									1			1	12
" Percinius					1	1							2
Fracture		1											1
" Leg							1						1
" Vertebre											1		1
" Skull		1			1	2	2		1				7
Frost Bite			1										1
Fungus				1									1
Gangrene, Face			1										1
" Foot				1						1			2
" (Senile)			1		1		3	1		1			7
Gastro Enteritis		1	3	1	4	2	5	1	4	2	5	3	31
Gout				1	2				1				4
Hernia, Abdominal											2		2
Hernia (Strangulated)		1	1	2			2	3	2	2	1		14
Hemorrhage		1				1							2
" Internal											1		1
" Brain						1		1			3	2	7
" Navel		1	3	2		1	1		1			1	10
" Stomach		1											1
" Bowels							1	1				1	3
" Lungs	1	1	1	1	1		1		1		1	1	9
" Uterus			1			1			1			1	4
" Nose	1												1
" Puerperal							1						1
Heart Clot								1			2		3

REPORT OF DEATHS—Continued.

DISEASES.	Nov. '76.	Dec. '76.	Jan. '77.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Total.
Hydrocepalus	2	4	5	5	9	4	2	7	5	3	3	1	50
Hæmoptysis	.....	....	....	.....	.....	.....	.....	.....	1	....	.....	....	1
Hydrocele	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	....	1
Inanition	9	7	10	10	11	9	7	22	27	18	12	10	152
Indigestion	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Insanity	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	7
Inflammation of Brain	5	5	7	5	4	5	5	9	6	11	7	3	72
" Bladder	....	.....	1	1	.....	.....	1	.....	.....	.....	.....	.....	3
" Bowels	3	5	4	.....	7	7	11	9	12	4	17	7	86
" Stomach	.....	4	3	6	4	2	6	5	4	1	2	1	38
" Bronchi	8	11	4	8	13	11	13	6	4	5	3	6	92
" Heart	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	1	3
" Kidneys	2	1	2	1	1	.....	.....	1	1	1	.....	1	11
" Larynx	.....	2	1	2	3	1	2	1	.....	.....	3	1	16
" Liver	3	1	.....	2	4	2	2	1	2	1	3	.....	21
" Pericardium	2	.....	1	....	....	2	.....	1	.....	1	1	1	9
" Peritoneum	.....	6	4	3	4	3	2	5	3	.....	3	3	36

" Pleura	1	1		2		1						1	6
" Ovary								1					1
" Tonsils				1				1		2	1		5
" Uterus		1											1
" Mouth					1							1	2
" Throat										1			1
" Ear	1												1
Injuries					1								1
Intussusception		3				1		1			2	1	8
Intemperance	3	3	1	6	1	2	2	2	2	2	5	1	30
Jaundice				2		2	1	1	1	1	1	2	11
Leucocrythæmia										1			1
Lymphademitis											2		2
Myelitis										1			1
" Leucocythæmia											1		1
Malformation	1	3	1	1									6
" Heart								1					1
Marasmus	10	9	8	7	17	10	4	22	21	21	18	19	166
Measels	1	9	15	22	46	37	12	7	7		2	1	159
Meningitis		6	6	10	11	7	8	21	7	13	14	9	112
" Tubercular		9	11	9	5	10	6	15	11	8	12	9	105
" Cerebro Spinal	3	1	2		5	1	2				4	2	20
" Spinal									7				7
Murder						1				1	1		3
Necrosis							1	1	1	1			4
Nervous Exhaustion				1							1	1	3

REPORT OF DEATHS—Continued.

DISEASES.	Nov. '76.	Dec. '76.	Jan. '77.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Total.
Neuralgia									1				1
Non-closure of Foramen Ovale											1		1
Occlusion of Gall Duck							1						1
Ovarian Disease											1		1
Old Age	12	24	20	16	27	12	21	14	18	8	20	15	207
Oedema of Glottiz						1							1
" Lungs							1					1	2
Metritis											1	2	3
Puerperal Metritis		1	1	2									4
Puerperal Peritonites											1		1
Metro Peritonites		1											1
Parotiditis							1						1
Prostatitis							2		1				3
Placenta Praivia			1										1
Pleuro Dynia						1							1
Progressive Locomotive Ataxia		1						1		1			3

Puerparal Mania		1											1
Phrenitis									1				1
Paralysis	5	14	11	7	11	8	5	14	11	12	10	9	117
Pneumonia	11	36	30	53	61	40	37	24	12	14	13	14	345
" Typhoid		2	3	2	3	7	2		2	1	1	1	24
" Pleuro		2	6	2	7	1	3	3	1	1		2	28
Poison	1	3			1	2	1	1	1	1	3		14
Premature Birth	7	9	6	8	9	9	10	22	14	14	14	11	133
Purpura				1								1	2
Pyæmia		1			3	1	1	1	2			1	10
Regurgitation								1					1
Rheumatism	1	8	4		6	4	3	7	2	3	6	3	47
Rachitis								1					1
Ricketts Larynxgismus											1		1
Rupture Uretha	1												1
Scalds		1	2	1			1			1			6
Sciatica	1												1
Stricture Pylorus											1		1
Spina Befida											1		1
Strangulation			2										2
Suffocation					1		1		7		1	3	13
Scrofula	2	4	3	3	9	10	5	4		6	6		52
Softening of Brain	4	3	3	3		5	5	6	4	2	3	5	43
Septicæmia	1		1			1	1				2		6
Stricture	2								2				4
" Intestines										1	1	1	3

REPORT OF DEATHS—Continued.

DISEASES.	Nov. '76.	Dec. '76.	Jan. '77.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Total.
Sun Stroke							1	1		1	1		4
Suicide		1			4		3	3	2	1	3	2	19
Syphilis	1	2	1	1	1		1	1	6	3	1		18
Tabes Dorsalis					1								1
Taxæmia										1			1
Thrush			1		1		1						3
Tabes Mesenterica				1	1		1	4	3	1	2		13
Tetanus		1	2		1		2	2	1	2	2	1	14
Trismus Nascentium	6	5	4		1	2	3	6	1	1	3	2	34
Tumor						1	1			1			3
" Breast									1				1
" Abdomen			1				1	1				2	5
" Brain	1				1								2
" Womb		1		2				1				1	5
" Ovarian					1		1				2	1	5
Ulcer, Colon		1											1
"				1									1
" Oesophagus											2		2

" Bowels	....	1	....	....	.....	....	.....	.....	.....	1	1	.....	3
" Intestines	1	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
" Rectum	....	....	....	.....	....	1	.....	.....	.....	.....	.....	.....	1
Uræmia	....	2	....	1	2	.....	.....	2	1	1	2	1	12
Unknown Adult	5	3	1	....	.....	.....	5	1	1	2	1	.....	19
" Infantile	1	6	14	3	3	2	3	6	3	7	2	6	56
Whooping Cough	5	2	11	6	21	28	26	56	53	51	29	9	297
Worms	....	....	....	1	.. .	.....	.....	.....	.....	.....	.....	.....	1
Wounds	.....	2	.....	.....	1	2	.....	.....	.....	.....	.....	2	7
" Pistol	.....	. ..	.....	1	.....	....	.....	.....	.....	.....	2	. ....	3
" Gunshot	1	2	1	....	.....	.....	.....	.....	11	.....	.....	.....	15
" Penetrating	.....	....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1
	429	683	553	581	753	589	539	937	889	725	732	526	7936

REPORT OF DEATHS—Continued.

AGES.	Nov. '76.	Dec. '76.	Jan. '77.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	October.	Total.
Under 1 year.....	89	137	121	122	144	135	121	382	423	248	167	98	2187
Between 1 and 2 years.....	45	95	85	112	155	109	88	176	140	153	109	59	1326
" 2 " 5 "	25	52	41	35	65	42	44	43	34	35	44	57	517
Under 5 years.....	159	284	247	269	364	286	253	601	597	436	320	214	4030
Between 5 and 10 years.....	34	58	45	38	39	45	35	65	45	47	65	53	569
" 10 " 15 "	10	16	14	9	17	11	14	18	20	10	20	18	177
" 15 " 20 "	11	17	19	19	23	29	14	19	16	23	29	16	235
" 20 " 30 "	52	59	45	45	69	36	40	48	43	47	68	41	593
" 30 " 40 "	44	53	39	52	50	44	29	41	39	44	57	38	530
" 40 " 50 "	35	43	27	28	48	38	34	35	26	35	49	47	445
" 50 " 60 "	25	41	33	38	43	34	38	35	30	31	48	34	430
" 60 " 70 "	30	50	45	39	45	34	32	32	24	20	33	30	414
" 70 " 80 "	21	49	30	36	36	26	33	33	31	24	29	25	373
" 80 " 90 "	7	12	8	7	14	5	14	10	18	8	14	8	125
" 90 " 100 "	1	1	1	1	5	.....	3	.....	.....	.....	.....	1	13
" 100 " 110 "	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	2
Above 110 years.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	429	683	553	581	753	589	539	937	889	725	732	526	7936

REPORT OF DEATHS—Concluded.

SEXES.	Nov. 1876.	Dec. 1876.	Jan. 1877.	February.	March.	April.	May.	June.	July.	August.	September.	October.	Total.
WHITE.													
Males	172	275	209	221	294	205	202	345	342	280	275	197	3017
Females	179	256	217	239	301	239	209	355	319	248	290	216	3068
Total	351	531	426	460	595	444	411	700	661	528	565	413	6085
COLORED.													
Males	35	81	67	64	79	61	60	115	98	91	70	41	862
Females	43	71	60	57	79	84	68	122	130	106	97	72	989
Total	78	152	127	121	158	145	128	237	228	197	167	113	7936
Still Born	41	68	40	44	52	33	38	57	40	36	53	48	550

TABLES

FOR THE TWO MONTHS ENDING DEC. 31, 1877.

ANNUAL REPORT OF DEATHS

In the City of Baltimore, from November 3d, 1877, to December 29th, 1877.

DISEASES.	Nov. 3, '77.	Nov. 10, '77.	Nov. 17, '77.	Nov. 24, '77.	Dec. 1, '77.	Dec. 8, '77.	Dec. 15, '77.	Dec. 22, '77.	Dec. 29, '77.	Total.
Abscess									2	2
" Liver				1						1
Abortion									1	1
Albuminuria		1	1				2			4
Anæmia	2									2
Angina Pectoris	1									1
Apoplexy	3	1	4	3	1	1	4	2	3	22
Asphyxia									1	1
Asthma	1					1		1		3
Asthenia		1	2		1	1	1			6
Atresia Ani			1							1
Bright's Disease	2			1		1				4
Burns		4					2			6
Capillary Bronchitis					1		1	3	1	6
Carbuncle								1		1
Caries Pelvis		1								1

Cancer, Mouth			1							1
" Face					1	1				2
" Diffused		1			1			1	1	4
" Breast		1				1	1		1	4
" Internal		1								1
" Rectum		1								1
" Throat				1						1
" Uterus		1	1			1	1	1	3	8
" Stomach	1	2	2		1		1			7
Casualties	1	2			1				1	5
Cholera Infantum							1			1
" Morbus				1						1
Cirrhosis of Liver			1			1	1	1		4
Congestion of Brain			1	2		1	1	1	3	9
" Liver			1							1
" Lungs		1	1	1	1	1			1	6
Consumption of Lungs	15	24	18	22	26	22	20	30	22	199
Convulsions	9	5	6	2	7	4	3	4	6	46
Croup	4	7	6	4	6	4	6	6	7	50
Cyanosis	1						1	2		4
Cystitis					1					1
Disease of Cord	3	3	5	4	5	11	4	2	5	42
Diptheretic Croup				1						1
Dropsy, (Gen'l)	4		1	2		2	2	1	2	14
Drowned	1		3	1	1	1			1	8
Duchennes' Disease	1									1

REPORT OF DEATHS—Continued.

DISEASES.	Nov. 3, '77.	Nov. 10, '77.	Nov. 17, '77.	Nov. 24, '77.	Dec. 1, '77.	Dec. 8, '77.	Dec. 15, '77.	Dec. 22, '77.	Dec. 29, '77.	Total.
Dysentery	.....	1	1	.....	.....	.....	.....	.....	1	3
Dentition	2	1	1	.....	.....	3	3	.....	2	12
Diarrhœa	.....	1	1	.....	.....	1	1	.....	1	5
Diptheria	16	11	15	16	15	15	11	17	4	120
Embolism	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Enlargement Brain	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Epilepsy	.....	1	.....	.....	1	.....	.....	.....	.....	2
Erysipelas	1	.....	.....	.....	.....	1	2	.....	1	5
Febro Cystic Tumor of Uterus	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Fever, Malarial	.....	.....	.....	1	.....	.....	.....	.....	.....	1
" Intermittent	.....	.....	.....	1	.....	.....	1	.....	.....	2
" Puerperal	1	1	.....	.....	.....	.....	1	.....	.....	3
" Remittent	.....	.....	.....	.....	.....	.....	1	.....	.....	1
" Scarlet	6	4	4	5	5	2	3	3	2	34
" Typhoid	2	5	4	7	4	3	6	6	9	46
" Typhus	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Fistula	1	.....	.....	.....	.....	.....	.....	.....	.....	1

Fracture		1								1
" Skull		1					1			2
Gangrene, Lungs									1	1
Gastro Enteritis		1				1		1		3
Hernia (Strangulated)		1							1	2
Hemorrhage, Brain					1					1
" Stomach								1		1
" Lungs			1		1					1
" Nose			1							1
Hydrocepalus	1				1	1			1	4
Icterus Neonatorum			1							1
Inanition	3	2	2	4	4	2	1	2	1	21
Inflammation of Brain	1		1			1	1	1	1	6
" Bowels	1	2	3	1		1	1		2	11
" Stomach	2			2	1					5
" Bronchi			1	1	2	1	3	4	1	13
" Kidneys	1	1				2	1			5
" Larynx		1		1					1	3
" Liver					2				1	3
" Pericardium		1								1
" Peritoneum		1					1			2
" Throat		1								1
Intussusception								1		1
Intemperance			2	1				1	1	5
Jaundice				2		1				3
Leucocrythæmia	1			1						2

REPORT OF DEATHS—Continued.

DISEASES.	Nov. 3, '77.	Nov. 10, '77.	Nov. 17, '77.	Nov. 24, '77.	Dec. 1, '77.	Dec. 8, '77.	Dec. 15, '77.	Dec. 22, '77.	Dec. 29, '77.	Total.
Mania-a-portu	.....	.....	.....	.....	....	.....	.....	.....	1	1
Malformation	.....	.....	.....	.....	.....	.....	1	.....	.....	1
Marasmus	2	5	.....	3	6	2	1	3	4	26
Measels	1	.....	.....	.....	.....	.....	.....	.....	1	2
Meningitis	3	.....	3	2	2	1	2	1	2	16
" Tubercular	3	1	1	1	.....	2	1	.....	1	10
" Spinal	.....	.....	.....	1	.....	.....	.....	.....	.....	1
Metritis	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Metro Peretonitis	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Mitro Regurgitation	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Myelitis	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Neonatorium	.....	1	.....	.....	.....	.....	.....	.....	.....	1
Obstruction of Bile Ducts	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Old Age	3	8	2	3	3	8	5	6	.....	38
Puerperal Metritis	.....	.....	.....	.....	.....	1	.....	1	.....	2
Paralysis	1	2	2	1	1	2	1	.....	2	14
Pneumonia	11	5	5	4	4	1	8	9	7	54

" Typhoid		1				2				3
" Pleuro		1	1				1			3
Poison		1								1
Premature Birth	1	3	2	2	2	2	1	2	4	29
Pyæmia						1		1		2
Rheumatism	1	1								2
Rupture in Delivery			1							1
Scalds							1			1
Stomotitis	2									2
Suffocation			1							1
Scrofula			1			1			1	3
Softening of Brain	1			1	1	1	2	1		7
Septicæmia			1							1
Syphilis		1					1			2
Tabes Mesenterica	1					1				2
Tetanus			1			1	1	1		4
Trismus Nascentium		1	1				1	2	1	6
Tumor, Brain		1								1
" Ovarian							1			1
Ulcer, Uterus						1				1
Uræmia		2				1			2	5
Unknown Infantile				1		1	3	1	2	7
Whooping Cough	5	1	2		1	3		1		13
Wounds								1		1
	125	127	119	109	114	123	124	124	121	1086

REPORT OF DEATHS—Continued.

AGES.	Nov. 3, '77.	Nov. 10, '77.	Nov. 17, '77.	Nov. 24, '77.	Dec. 1, '77.	Dec. 8, '77.	Dec. 15, '77.	Dec. 22, '77.	Dec. 29, '77.	Total.
Under 1 year	29	24	29	14	26	22	24	23	30	221
Between 1 and 2 years	26	12	13	12	16	13	16	20	15	143
" 2 and 5 "	11	8	11	5	6	10	9	9	9	78
Under 5 years	66	44	53	31	48	45	49	52	54	442
Between 5 and 10 years	9	11	11	13	9	7	8	9	6	83
" 10 and 15 "	3	7	2	3	1	2	3	1	7	29
" 15 and 20 "	2	5	2	4	2	5	8	3	5	46
" 20 and 30 "	3	10	7	14	12	9	15	19	8	97
" 30 and 40 "	12	10	10	11	10	11	9	10	10	93
" 40 and 50 "	8	5	8	6	5	7	9	9	12	69
" 50 and 60 "	6	4	12	12	11	10	7	5	5	72
" 60 and 70 "	6	16	7	9	7	10	4	6	6	41
" 70 and 80 "	7	9	6	4	4	12	10	7	4	63
" 80 and 90 "	2	6	1	2	4	3	2	2	3	25
" 90 and 100 "	1	.....	.....	.....	.....	1	.....	1	1	4
" 100 and 110 "	.....	.....	.....	.....	1	1	.....	.....	.....	2
	125	127	119	109	114	123	124	124	121	1086

REPORT OF DEATHS—Concluded.

SEXES.	Nov. 3, '77.	Nov. 10, '77.	Nov. 17, '77.	Nov. 24, '77.	Dec. 1, '77.	Dec. 8, '77.	Dec. 15, '77.	Dec. 22, '77.	Dec. 29, '77.	Total.
WHITE.										
Males	53	48	37	30	41	59	47	44	40	399
Females	50	51	59	55	51	38	47	54	52	457
Total	103	99	96	85	92	97	94	98	92	856
COLORED.										
Males	11	8	10	8	8	10	16	10	11	92
Females	11	20	13	16	14	16	14	16	18	138
Total	22	28	23	24	22	26	30	26	29	1086
Still Births	10	14	10	9	19	11	10	7	7	97

Table showing Amount of Animal and Vegetable Garbage

				Canton Loads.
August.. ...	R. H. Gault,	Superintendent.....	753	
"	"	"	...1093	
"	"	"	 932	
"	"	"	 681	3,459
September	"	"	 430	
"	"	"	 388	
"	"	"	 417	
"	"	"	 482	
"	"	"	 612	2,329
October.....	"	"	 398	
"	"	"	 227	
"	"	"	 206	
"	"	"	 181	1,012
November..	"	"	 177	
"	"	"	 140	
"	"	"	 140	
"	"	"	 246	703
December ..	"	"	 120	
"	"	"	 141	
"	"	"	 97	
"	"	"	 102	
"	"	"	 169	629
				8,132

Delivered to Contractors at Canton and Spring Gardens.

				Spring Gardens.
August.....	Sam'l H. Wentz,	Superintendent...	582	
"	"	" ...	319	
"	"	" ...	334	
"	"	" ...	377	1,612
September.	"	" ...	604	
"	"	" ...	290	
"	"	" ...	249	
"	"	" ...	254	
"	"	" ...	174	1,571
October.....	"	" ...	290	
"	"	" ...	141	
"	"	" ...	144	
"	"	" ...	204	779
November..	"	" ...	117	
"	"	" ...	103	
"	"	" ...	95	
"	"	" ...	230	545
December..	"	" ...	88	
"	"	" ...	62	
"	"	" ...	86	
"	"	" ...	100	
	"	" ...	165	501
	Spring Gardens.....			5,008
	Canton.....			8,132
				13,140

REPORT OF VACCINE PHYSICIANS

From November 1st, 1876, to October 31st, 1877—Twelve Months.

Wards.	Names of Physicians.	Residence.	Number of Calls.	Number of Vaccinations.	Primary.	Secondary.	Successful.	Failed.	Not Heard From.	Male.	Female.	White.	Colored.
1st and 2d	Jas. F. McShane.....	68 South Broadway...	3,003	169	161	8	58	9	102	76	93	163	6
3d " 4th	Chas. M. Morfit.....	76 East Baltimore St..	2,760	46	43	3	41	5	....	23	23	41	5
5th " 6th	E. G. Walls.....	181 East Monument St.	1,237	170	161	9	148	18	4	65	105	139	31
7th " 8th	S. W. Hunter.....	111 Greenmount Ave..	1,794	118	118	....	81	14	23	59	59	92	26
9th " 10th	F. W. Germon.....	57 North Paca St.....	1,902	72	71	1	57	12	....	39	33	34	38
11th " 12th	W. B. Munnickhuysen	198 North Howard St.	1,704	137	121	16	81	20	....	58	79	42	95
13th " 14th	H. Darling.....	252 Lexington St.....	1,790	190	74	36	56	41	12	53	57	38	72
15th " 16th	S. A. Bell.....	Lee and Sharp Sts....	1,878	139	139	....	87	23	29	48	39	70	17
17th " 18th	J. E. Harrington.....	321 Light St.....	1,531	286	168	18	123	....	....	....	....	124	64
19th " 20th	A. H. Saxton.....	243 Lexington St.....	1,001	298	274	24	169	59	72	147	151	182	116
			18,600	1,625	1,330	115	902	201	242	568	639	925	470

REPORT OF VACCINE PHYSICIANS

From November 1st, 1877, to December 31st, 1877—Two Months.

Wards.	Names of Physicians.	Residence.	Number of Calls.	Number of Vaccinations.	Primary.	Secondary.	Successful.	Failed.	Not Heard From.	Male.	Female.	White.	Colored.
1st and 2d	Jas. F. McShane.....	68 South Broadway..	140	14	14	....	7	....	7	11	3	14	....
3d " 4th	Chas. M. Morfit.....	76 East Baltimore St..	200	2	2	....	2	....	....	1	1	2	....
5th " 6th	E. J. Walls.....	181 East Monument St.	251	16	16	....	15	1	....	7	9	3	13
7th " 8th	S. W. Hunter.....	111 Greenmount Ave.	697	20	19	1	5	3	12	9	11	20	....
9th " 10th	S. W. Germon.....	57 North Paca St....	210	8	8	....	6	2	....	4	4	5	3
11th " 12th	W. B. Munnickhuysen	214 North Howard St.	307	20	20	....	13	1	....	9	11	10	10
13th " 14th	H. Darling.....	252 Lexington St.....	168	16	13	3	9	3	4	9	7	8	8
15th " 16th	S. A. Bell.....	Lee and Sharp Sts....	20	6	6	....	5	....	1	3	2	6	....
17th " 18th	J. E. Harrington.....	321 Lexington St.....	153	5	5	....	4	1	....	4	1	4	1
19th " 20th	A. A. Saxton.....	543 Lexington St	83	40	21	19	17	....	23	16	24	21	19
			2,119	147	124	23	87	11	47	74	73	93	54
From November 1st, 1876, to December 31st, 1877..			20,719	1,772	1,454	138	989	212	289	642	712	1018	524

Street and Garbage account for fourteen months, ending December 31st, 1877.

Districts.	Names of Superintendents.	Totals.	Cost of Garbage.	Cost of street carts.	Cost of Scrapers.	Garbage Collected.	Street dirt collected.	Sand & Ice removed.	Cost of Tools.
1st.	Robert H. Wells	$30,871 46	$12,678 00	$10,022 25	$8,171 21	15,830	11,693	17,897	
2d.	John H. Coulter	32,123 54	16,434 00	8,961 00	6,728 54	22,184	7,591	29,076	
3d.	Michael Fadgen	30,848 70	13,188 00	9,447 75	8,212 95	20,126	9,119	18,054	
4th.	William Hipsey	38,213 40	18,300 00	10,678 50	9,234 90	21,641	1,820	42,155	
5th.	Henry Lancaster	41,055 00	23,985 00	10,395 00	6,675 00	32,131	2,580	33,552	
		$173,112 10	$84,585 00	$49,504 50	$39,022 60	111,912	32,803	141,834	
	Cost of tools	3,528 73							$3,528 73
	Garbage contract	2,250 00	2,250 00						
		$178,890 83	$86,835 00	$49,504 50	$39,022 60	111,912	32,803	141,834	$3,528 73
	Extra appropriation, Jan. 18, 1877.	9,999 75		4,609 50	5,390 25			55,912	
	For 12 months, Oct 31, 1877	$188,890 58	$86,835 00	$54,114 00	$44,412 85	111,912	32,803	197,746	$3,528 73
	Pay rolls, November, 1877	$13,434 00	$7,392 00	$3,610 50	$2,431 50	8,721	8,203		
	Contract, November, 1877	1,125 00	1,125 00						
	Pay rolls, December, 1877	12,488 00	5,868 00	3,863 50	2,756 50	9,320	8,890		
	Contract, December, 1877.	1,125 00	1,125 00						
		$28,172 00	$15,510 00	$7,474 00	$5,188 00	18,041	17,093		

Pay rolls, December, 1877.....	$2,531 50	$1,407 00	$667 50	$457 00	1,734	1,493		
Garbage contract, Dec. 1877.....	1,125 00	1,125 00						
	$3,656 50	$2,532 00	$667 50	$457 00	1,734	1,493		
For two months, Dec. 31, 1877.....	$31,828 50	$18,042 00	$8,141 50	$5,645 00	19,775	18,586		
Totals for 14 months, Dec. 31, 1877,	$220,719 08	$104,877 00	$62,255 50	$50,057 85	121,687	51,389	197,746	$3,528 73

General Health account for Twelve Months, ending October 31st, 1877.

To Checks on Comptroller.....	$18,175 57	East Baltimore Public Cemetery lumber and labor.....	$100 56
		E. Baltimore Public Cemetery tools	43 89
		Removing dead from East. Potter's Field..... ...	322 00
		Postage.....$42 04 Car fare 32 27	74 31
		Repairing Potter's Field Wagon...	79 55
		Extra services required.....	395 00
		Advertising	438 69
		Disinfectants	137 40
		Interments.....	870 23
		Coffins.....	1,350 75
		Livery.....$344 27 Repairs of carriage,..... 93 40	437 67
		Prof. Tonry for Analysis.	205 00
		Printing and stationery.....	445 72
		Cleaning cesspools of Public Schools	2,876 43
		Chapel street.....	1,357 81
		Tenant street.....	26 65
		Typho-Malarial District.....	4,514 00
		Salary Sanitary Inspectors.....	4,500 00
To Checks on Comptroller.....	$18,175 57	October 31st, 1877, 12 months.....	$18,175 57

General Health, &c., for Two Months ending December 31st, 1877.

To Checks on Comptroller.....	$1,308 52	Sanitary Inspectors.....	$750 00
		Coffins	113 75
		Interments.....	144 06
		Postage.....	31 69
		Livery	45 60
		Advertising	48 08
		Dead house W. Baltimore P. Cemetery.....	110 00
		Disinfectants	65 34
To Checks on Comptroller.....	$1,308 52	Nov. and Dec. 1877, 2 months.....	$1,308 52
		December 31st, 1877, 14 months...	$19,484 09

GENERAL HEALTH ACCOUNT.—Concluded.

		Deficiency paid in Dec. 1877.		
To Checks on Comptroller.....	$1,512 71	Interments C. Streeper.....$46 50		
		" F. A. Kerchner. 70 50	$117 00	
		Coffins Michael Funk..... 47 75		
		" Henry Schultheis..... 48 50		
		" J. J. Chalmers..... 35 75	167 00	
		" C. F. Krause..... 35 00		
		Printing asked for John Murphy & Co.....	115 03	
		Printing Noble & Godwin.....	3 00	
		Postage B. M. Richards.....	2 96	
		Tools John R. Hudgins.....	6 15	
		Repairs of Clock.....	2 25	

		Repairs of Wagon, J. R. Kunkel..	18 15
		Livery, H. M. Jackson.....	25 00
		American, Jas. Dew.....	3 12
		Duncan alley paving L. Hax & Bro.	369 05
		Cleaning cesspools Public Schools, F. F. Smith.....	78 00
		Odorless Ex. A. Co., Public School	606 00
To Checks on Comptroller.....	$1,512 71		$1,512 71
	$20,996 80	Totals for 14 months ending December 31st, 1877.....	$20,996 80

Nuisance and Sewer Account, Twelve Months ending October 31st, 1877.

To 12	checks on	Comptroller...	$1,525 00	By 12	vouchers,	Charles Streeper.....	$1,525 00
" 12	"	"	1,391 67	" 12	"	M. A. C. Perry.....	1,391 67
" 1	"	"	83 33	" 1	"	F. A. Kerchner.....	83 33
" 12	"	"	600 00	" 12	"	Henry Paff.....	600 00
" 12	"	"	600 00	" 12	"	John W. Lee.....	600 00
				" 1	"	L. Hax & Bro., grading and paving in rear of	
" 1	"	"	462 54			Gilmor street.....	462 54
				" 1	"	A. Knoop, cleaning Chatsworth run.....	300 00
" 1	"	"	300 00				
" 1	"	"	462 08	" 1	"	filling lot on Laurens street	462 08
" 1	"	"	159 24	" 1	"	Frank Richardson, paving	159 24
" 1	"	"		" 1	"	draining lot on Lanvale	
			146 00			and Calhoun streets.....	146 00
" 1	"	"	34 00	" 1	"	Oxford street sewer.....	34 00
" 1	"	"	6 00	" 1	"	deal oil, Jones' Falls.....	6 00
" 1	"	"	10 00	" 1	"	" scow.....	10 00
" 3	"	"	170 80	" 3	"	repairs of "dog wagon"...	170 80
" 1	"	"	35 50	" 1	"	" " ...	35 50
" 1	"	"	79 50	" 1	"	" " ...	79 60
" 2	"	"	207 65	" 2	"	repairs of Chapel street....	207 65
				" 2	"	cleaning fish from Bowly's	
" 2	"	"	35 50			wharf.....	35 50
				" 1	"	cleaning Division street	
" 1	"	"	22 50			sewer.....	22 50

" 1	"	"	12 00	" 1	"	cleaning sewer on Carey street	12 00
" 1	"	"	64 00	" 1	"	work on Chapel street	64 00
" 1	"	"	5 00	" 1	"	repairs W. Public Cemetery	5 00
" 1	"	"	60 00	" 1	"	Dr. Jas. A. Stuart, horse	60 00
To 71 checks			$6,472 31	By 71 vouchers, 12 months, Oct. 31st, 1877			$6,472 31
To 2 checks on Comptroller			$250 00	By 2 vouchers, Charles Streeper			$250 00
" 2	"	"	250 00	" 2	"	F. A. Kerchner	250 00
" 2	"	"	100 00	" 2	"	John W. Lee	100 00
" 2	"	"	100 00	" 2	"	Henry Paff	100 00
" 1	"	"	40 50	" 1	"	Saratoga street sewer and culvert	40 50
" 4	"	"	54 90	" 4	"	Eager street sewer	54 90
To 13 checks			$795 40	By 13 vouchers, 2 months, Dec. 31st, 1877			$795 40
			$7,267 71	December 31st, 1877—14 months			$7,261 71
To 1 check on Comptroller				*Deficiency paid in December*, 1877.			
			1,124 73	By 1 voucher, paving Chapel street			1,124 73
			$8,392 44	Totals for 14 months ending Dec. 31st, 1877			$8,392 44

Salary Account for 12 *Months, to October* 31*st*, 1877.

To 12 Checks on Comptroller.....	$17,700 60	By 1 voucher, November 1, 1876...			$1,175 05
		" 1 " December 1, 1876...			2,075 05
		" 1 " " 30, 1876...			1,175 05
		" 1 " February 1, 1877...			1,175 05
		" 1 " March 1, "			2,075 05
		" 1 " " 31, "			1,175 05
		" 1 " May 1, "			1,175 05
		" 1 " June 1, "			2,075 05
		" 1 " " 30, "			1,175 05
		" 1 " August 1, "			1,175 05
		" 1 " September 1, "			2,075 05
		" 1 " October 23, "			1,175 05
12	$17,700 60	12			$17,700 60
To 2 Checks on Comptroller.....	$3,250 10	By 1 voucher, November 1, 1877...			$1,175 05
		" 1 " December 1, "			2,075 05
2	$3,250 10	2			$3,250 10
To 14 Checks on Comptroller.....	$20,950 70	By 14 vouchers, 14 months.....			$20,950 70

Lime and Incidentals, 12 *Months ending October* 31*st*, 1877.

4 Checks on Comptroller.....	$297 52	1 voucher Timothy Ryan.....	$103 50
		1 " Balto. Coal Tar Co.....	98 96
		1 " J. H. Cottman, "Lime."	46 90
		1 " " "	48 16
4 Checks.....	$297 52	4 vouchers.....	$297 52

Cost of Maintaining Dumps Nos. 1 *and* 4, *for Twelve Months ending October* 31*st*, 1877.

To 138 checks on Comptroller.....	$6,888 53	By 100	vouchers,	Pay Rolls.....	$4,290 21
		" 10	"	Rents.....	1,175 00
		" 4	"	Barrels.....	568 37
		" 9	"	Tolls.....	401 61
		" 6	"	Feed.....	310 94
		" 6	"	Advertising.....	80 40
		" 2	"	Coal.....	12 00
		" 1	"	Screens.....	50 00
To 138 checks.....	$6,888 53	By 138	vouchers.....		$6,888 53

Cost of Maintaining Dumps Nos. 1 and 4 for Two Months—November and December, 1877.

To 20 checks on Comptroller.....	$994 19	By	12	vouchers,	Pay Rolls.....	$422 25
		"	2	"	Rents.....	250 00
		"	1	"	Barrels.....	132 00
		"	2	"	Brooms.....	98 75
		"	1	"	Tolls.....	41 84
		"	1	"	Lime.....	25 00
		"	1	"	Repairs.....	24 35
To 20 checks.....	$994 19	By	20	vouchers		$944 19
To 7 checks on Comptroller	$343 33	"	7	"	Deficiency.....	$343 33
To 165 " "	$8,226 05	"	165	"	14 months.....	$8,226 05

Marine Hospital account, for twelve months ending October 31st, 1877.

To 102 Checks on Comptroller...	$18,838	84	By	14	vouchers, November, 1876.....	$3,563	84
			"	14	" December, 1876.....	1,590	80
			"	7	" January, 1877.....	1,057	02
			"	4	" February, 1877.....	972	43
			"	6	" March, 1877.....	958	24
			"	3	" April, 1877.....	975	06
			"	4	" May, 1877.....	950	98
			"	6	" June, 1877.....	1,632	76
			"	6	" July, 1877.....	299	71
			"	3	" August, 1877.....	219	72
			"	6	" September, 1877.....	3,157	27
			"	29	" October, 1877.....	3,461	01
102	$18,838	84	102			$18,838	84
To 8 Checks on Comptroller.....	$1,194	23	By	4	vouchers, November, 1877.....	210	60
			"	4	" December, 1877.....	983	63
8	$1,194	23	8			$1,194	23
To 110 Checks on Comptroller..	$20,033	07	By 110 vouchers, fourteen months.....			$20,033	07

		For Two Months Ending December 31, 1877.	For Twelve Months Ending October 31, 1877.	Totals.
Street and Garbage account	$28,172 00			
" " Deficiency	3,656 50			
		$31,828 50	$188,890 58	$220,719 08
Nuisance and Sewer account	795 40			
" " Deficiency	1,124 73			
		1,920 13	6,472 31	8,392 44
General Health account	1,308 52			
" " Deficiency	1,512 71			
		2,821 83	18,175 57	20,996 80
Lime and Incidental account			297 52	297 52
Maintaining Dumps 1 and 4	994 19			
" " Deficiency	343 33			
		1,337 52	6,888 53	8,226 05
Salary account		3,250 10	17,700 60	20,950 70
Marine Hospital account		1,194 23	18,838 84	20,033 07
		$42,351 71	$257,263 95	$299,615 66

REPORT

OF THE

General Superintendent of Streets.

REPORT.

BALTIMORE, October 31st, 1877.

JAMES A. STEWART, M. D.,

Commissioner of Health.

SIR:—Again it becomes my duty as well as pleasure, as Assistant Commissioner of Health and General Superintendent of Streets, to lay before you a report of work done in this branch of the Department, and cost of same, for the fiscal year ending October 31st, 1877, with comments upon this and other matters claiming my attention during the year.

For collecting and removing 113,646 loads garbage and ashes	$85,992 00
For removing street dirt, sand, snow, ice, and cleaning the several Market Houses, 176,130 loads	50,172 00
For scraping and sweeping streets	39,479 60
Incidentals, scrapers, picks, shovels, brooms and repairs	3,528 73
Amount carried forward	$179,172 33

Amount brought forward.....	...$179,172 33
Paid Contractor for removal of garbage, six miles beyond city limits.....	2,250 00
Total.....	$181,422 33
To which must be added amount expended out of extra appropriation made, January, 1877, with which was removed, snow, ice, &c. 55,912 loads	$9,999 75
Total number of loads 345,688, and cost of same...	$191,422 08

This includes amounts due on pay rolls and handed to City Comptroller, under the head of deficiency bills. I desire here to call attention to the fact that the past winter is generally conceded to have been the longest and most severely cold winter known in this latitude, in many years, the snow and frost commencing early in November of '76, and continuing with little or no abatement for more than three months. So large an accumulation of ice and snow in our streets may be said to be unprecedented, thus making it necessary to employ double the amount of force, in order to keep the streets at all passable. This large force was put to work early in the winter, hoping thereby to be able in a short time to get over the difficulty, but the repeated heavy falls of snow and large accumulation of ice rendered it necessary to retain this large force, thereby doubling the expenses of the Department for several weeks. Finding it impossible to continue this work without expending a much larger sum of money than had been appropriated for this purpose, and being, if possible, determined to keep, as instructed, within the limits of the appropriation, we were compelled, after having up to the time spoken of exceeded greatly our appropriation, to cease operations upon so large a scale, there being no cessation of the severe weather, and notwithstanding every exertion on the part of the Depart-

ment with the means at their disposal to keep the streets in anything like a passably good condition, they were unable to do so; in fact many localities in the business centre of the City became blocked up to such a degree as to seriously retard business, and appeals were constantly being made to this Department by those suffering inconvenience and loss, for the removal of those obstructions to trade and travel. Having as I have already stated expended a much larger sum of money in our attempt to remove these obstructions than the amount appropriated would justify, recourse was had to the Mayor and City Council for relief in this matter, and an extra appropriation of ($10,000) was granted to meet the emergency, every dollar of which was devoted to the payment of labor for this purpose, the necessarily large expenditure for tools to supply the extra force of men employed being charged to the regular Annual Appropriation, thereby giving the streets the benefit of the labor without any deductions whatever from this appropriation of ($10,000). In four weeks this extra appropriation was expended, doing a vast amount of good in the way of freeing the streets from snow and ice—but by no means placing them in a condition deemed necessary by us to have them. This being the case, we again added to our regular force a number of extra men and carts, thus a second time going beyond our regular means to accomplish that which we believed to be necessary. I would add that this work, done by both the regular and extra force during the greater part of this unusually severe weather, was continued night and day. I herewith append a table showing the disbursement of the ($10,000) extra appropriation, a glance at which will serve to show the large amount of ice and snow removed from the crossings, gutters, beds of streets, &c., and the very low cost of same:

TABLE.

Showing the expenditures under the appropriation approved January 18th, 1877, for the removal of Ice and Snow from streets.

Date 1877.	Name of Superintendent.	Cost of Hauling.	Labor Scrapers.	Loads Ice & Snow.	Totals.
Jan. 22.....	R. H. Wells.....	$295 50	$408 75	2,065	$ 704 25
" 29.....	"	499 50	513 75	3,459	1,013 25
Feb. 5.....	"	204 00	192 00	911	396 00
" 12.....	"	72 00	24 00	336	96 00
	1st District.....	$1,070 00	$1,138 50	6,771	$,209 50
Jan. 23.....	J. H. Coulter.....	$273 00	$304 50	3,559	577 50
" 30.....	"	759 00	727 50	10,147	1,486 50
Feb. 6.....	"	18 00	67 50	236	85 50
	2d District.....	$1,050 00	$1,099 50	13,942	$2,149 50

Jan. 24	McFadgen	$301 50	$474 75	4,780	$ 776 25
" 31	"	549 00	720 00	5,938	1,269 00
Feb. 7	"	75 00	25 50	996	100 50
" 14	"	15 00		100	15 00
	3d District	$940 50	$1,220 25	11,814	$2,160 75
Jan. 25	Wm. Hissey	$229 50	$276 75	3,745	$ 506 25
Feb. 1	"	600 00	505 50	11,050	1,105 50
" 8	"	192 00	27 00	4,250	219 00
	4th District	$1,021 50	$809 25	19,045	$1,830 75
Jan. 26	Hy. Lancaster	$ 88 50	$306 00	700	$ 394 50
Feb. 1	"	286 50	780 75	3,015	1,067 25
" 9	"	117 00	36 00	375	153 00
" 16	"	34 50		250	34 50
		$526 50	$1,122 75	4,340	$1,649 25
	Grand totals	$4,609 50	$5,390 25	55,912	$9,999 75

This latter is accounted for by the fact that much the greater portion of it was removed but very short distances. Jones' Falls, at various points, and several of our city docks, as well as vacant lots, the space at the intersection of Lombard and Liberty streets, also portions of the beds of our widest streets, Central avenue and others, were availed of. Our main object being to get this immense blockade of snow and ice out of the principal thoroughfares, having a given amount of work to do in a given time, for a limited amount of money, these extraordinary measures were deemed justifiable and necessary under the circumstances. Every exertion on our part has been made since to keep the city in a commendably cleanly condition at as low a cost as possible, and to so keep down our expenses in this particular as to get within the limits of the appropriation made for this purpose, but without being able to do so. We believe this would have been possible had we not been taxed with another unexpected burden this Summer and Autumn—namely, the extra cleaning up of 54 miles of streets in which gas mains were laid by the Consumers' Mutual Gas Company, added to which, nearly 5,000 supply pipes have been put in by this company up to the present writing. In a vast enterprise like this, notwithstanding this company has shown commendable energy in replacing pavements and the removal of debris consequent upon this kind of work, it became necessary to leave in their track a large amount of sand covering the newly constructed pavement over this fifty-four miles of pipe and 5,000 supply pipes—all of which after remaining on the streets for a sufficient length of time to serve the purpose for which it was placed there, had to be removed by the Health Department. Heavy rain at intervals washed this sand over various sections of the city. To clean up and remove this, has been a source of extra expense

to the Department; in addition to which there has been the usual amount of paving and repairing of streets, and several new and lengthy sewers constructed; thus, not only augmenting the work of the Department, but rendering the street dirt, from which, heretofore, some revenue was obtained, almost valueless, and very little of it could be disposed of in any other way than to fill up vacant lots and beds of streets which had not been graded or paved. Much good has been done in this way by the abatement of nuisances, which in all probability it would not otherwise have been possible to abate. The total cost of collecting and removing garbage, cleaning and sweeping the several Market Houses, the removal of offal from same, scraping and sweeping the streets, removal of sand, dirt, ice, snow, &c., was ($191,422.08), for which expenditure of money 345,652 loads were removed. Comparing this with the preceding year, the following results will be found:

In 1876, for the fiscal year ending, October 31st, there was removed 168,360 cart loads at an average cost of $1.\frac{7}{8}$c. per load. For the fiscal year ending October 31st, 1877, there was removed 345,688 cart loads at an average cost of $55\frac{2}{5}$c. Thus showing that while it became necessary to remove more than double the quantity of material from the City during the present year from causes heretofore explained, the cost per load has been but a little more than half that which was expended for this class of work in 1876, or any preceding year. I feel confident I speak within bounds when I say at no time in the city's history has it ever presented a more cleanly appearance than at the present writing. Believing that the health of all large Cities, to say nothing of the comfort to its citizens, depends in a great measure upon the cleanliness of the streets, it has been my constant aim to keep them at all times in a good sanitary condition. And I am happy to be able to say,

my efforts in this have been ably and cheerfully seconded by the District Superintendents, and those employed by this Department under their charge.

COST OF MAINTAINING DUMPS.

Rent of Dump, Nos. 1 and 4	$1,175 00
Wages	4,290 21
Barrels	574 00
Screens and fuel	62 00
Tolls	401 61
Feed for Mules	310 94
Blacksmith's Bill	65 00
Detective in A. A. County	63 00
Advertising	80 40
Repairs	184 70
	$7,206 86
Cash received for Poudrette, Compost and Refuse	$4,099 18
Poudrette, Compost, &c., on hand	2,500 00
Outstanding accounts for same	1,814 56
	$8,413 74

At the beginning of the year an appropriation of ($10,000) was asked for to carry on the work of the Dumps, and for the utilization of the refuse matter daily deposited there. This appropriation by action of the City Council, was reduced to ($2,000). Considerable outlay of money had been made prior to the knowledge on our part that a reduction of this character was contemplated. I deem it unnecessary to enter into any argument to prove how totally inadequate this small sum was for the purposes for which the large appropriation had been

asked, as it really covers very little more than the annual rent and tolls for these establishments, and as it became imperatively necessary to get without the great quantity of night soil and refuse matter which the Department was compelled to receive there, having no legal right to deposit it elsewhere. To put this mass of crude matter in an acceptable and transportable shape, necessarily costs considerable money, and I here take occasion to add that in no way could the city get back the cost of this system of utilization of its refuse. Attempts to do this have been made by Government authorities, and in very many instances by private enterprise, both in this and other countries, and from all I have been able to learn, have proven failures. Everything we have been able to do to make this matter a pecuniary success, has proven the fact of a failure on our part to succeed. In addition to this, we have been this season peculiarly unfortunate in being prohibited by the county authorities from using the only remaining Dump we had, just at that season of the year when the green garbage for composting with night soil was the heaviest and most abundant, thus cutting off what would have swelled considerably our receipts, and forcing the Department to seek places to deposit this kitchen offal wherever it could obtain them by permission of those living within distance of the city possible to haul this refuse matter to. Here again occurred the same difficulty we have before experienced. No sooner had we commenced depositing garbage at various points around the city, than complaints and threats of legal proceedings against the city for committing a nuisance were made by those owning and living on property adjacent to these deposits. Thus has the Health Department been between two fires, first having been legally enjoined to desist from committing a nuisance at a few points carefully selected where it was believed the least

possible complaint was likely to be made, namely, the inclosed dumping grounds—secondly, by finding a much larger number of places where permission from those owning or occupying the grounds was had; and being driven from thence, by their neighbors, the Department has thus been forced to do that which I believe is not only the most economical, but by far the best plan yet adapted to get rid of the garbage, namely, the present system of conveying it by rail or water to a distance of six miles beyond the city limits. The suggesting and perfecting of this plan by yourself has entirely done away with the nuisance heretofore committed by the city upon those living in its immediate vicinity, and to the present time has worked very satisfactorily, and I see no good reason why it should not do so in the future.

NUISANCES AND SEWERS.

A large number of nuisances complained of in many sections of the city, have met with prompt attention and have been abated—numbers of unpaved alleys have been paved—lots drained and filled up, decayed fish and other animal and vegetable matter in large quantities has been gathered and removed from the docks and conveyed to proper distance from the city with that promptness and dispatch necessary in a matter of this kind. I have little to add to what I have already said in my report of last year, in reference to sewers. Every attention has been paid to keeping clean the opening to them. Chatsworth and Schroeder's Run sewers have been greatly relieved by the construction of the Carey street sewer—carrying off a great portion of the water which, prior to its construction, was shed into the above sewers. Notwithstanding this, the irregularity in size of these sewers, the want of uniformity of the bottoms of them, which in many places are neither paved or

planked, rendering them foul and very offensive—possibly Harford Run sewer, in this respect, is in worse condition than any of them; besides this, it is totally inadequate to accommodate the greatly increased and constantly increasing water shed of the northeastern section of the city, through which it passes, and in times of heavy rain completely overflows numerous yards and the lower stories of dwelling-houses situated along its course, frequently causing serious apprehension of danger, and causing damage to property, as well as being detrimental to health. No time should be lost by the proper authorities to remedy this evil. The open water course beginning at the intersection of Cross and Race streets, which for so many years has been an almost intolerable nuisance and very detrimental to health, and which has so often brought forth earnest appeals from this Department to the proper authorities to abate, is now undergoing a thorough renovation, and a proper and substantial improvement is being constructed to carry the filthy and stagnant water from this locality into the river. A similar improvement is much needed at Harris' Creek, immediately in the rear or directly east of Patterson's Park, which is and has been for many years a drain or receptacle for the washings from slaughter-houses and other filthy matter, thus detracting from the beauty of the Park, and emits an odor in the Summer months not only very offensive but most certainly not conducive to health—notwithstanding the repeated recommendation of the Health Department. The opening, grading and paving of Dock street from Caroline to Bond street; also Dallas street from its present terminus to Thames street, and the opening of Register street from Lancaster street to Thames street, has been disregarded. This certainly is a much needed improvement, and should at the earliest possible moment be attended to. In no section of the

city has the Department had so much to contend with as regards the abatement of nuisances as in the northeastern section, that portion of it situated or bounded by Eager and Chase and Wolf and Washington streets; Chapel street, running parallel with and between Wolf and Washington streets, in the block described, was built upon several feet below grade, and in a marshy district very imperfectly drained, and consequently when the surrounding property was built upon or brought up to grade by filling up the lots, it left Chapel street and the houses erected thereon liable to be flooded by every rain, mingled with the washing of slaughter-houses situated on Monument and Chester streets. This last being an elevated district with grades inclining toward Chapel street, this filthy matter being precipitated into the valley and without sufficient drainage to allow of its being carried off, accumulated in the cellars, yards and the lots adjoining this Chapel street property—and became an alarming nuisance to the entire neighborhood. Every effort was made by the Health Department to find the owners of this property and to compel them to fill up these cellars and yards, and to cause the street in front and the alleys in rear of these houses on both sides of the street to be brought to grade with Eager street, but without avail, as much of this property was disowned, and the orders issued by the Department were disregarded by others professing to be owners. The magnitude of the nuisance and the evil consequences arising therefrom, admitted of no delay. The Department in accordance with the law providing for such cases took the matter in hand and filled up this low district, and caused the streets and alleys to be graded and paved, and did so far as was in their power all that could be done to so abate the nuisance as to prevent the certainty of wide-spread disease, had it been allowed to remain in the con-

dition in which they found it. Yet, notwithstanding the marked improvement in this district, much should yet be done to make it a desirable place to live, and to guard against future trouble. The drainage of this and surrounding property, relying solely as it does upon a temporary wooden sewer of entirely too small dimensions to carry off the slightest shower of rain which may be added to the usual flow of water from the surrounding neighborhood—and the certainty that the temporary box sewer, which is very defective, may at any time, and most certainly will at no distant day, fail to carry off the water from this district into Harford Run sewer into which it now empties, there should be no delay by the proper authorities in grading and paving Eager street east to intersect Chester street, and also to grade and pave Washington street south to Monument street. By doing this the city will prevent a nuisance upon its own property, and the surrounding lot owners will then be compelled to bring their lots to grade, and a surface drainage will be established which in my opinion is the only way in which this part of the city can be made perfectly safe to live in. In the immediate neighborhood of the foregoing there is another matter claiming the attention of the proper authorities. Ann street, between Biddle and Chase streets, for about two-thirds of the block is unpaved. The same is true of Wolf street, between Biddle and Chase streets. The beds of these streets but a short time since were deep, marshy places, with stagnant pools of filthy water upon them both unsightly and detrimental to health. This Department has caused them to be filled up by depositing coal ashes and sand from the streets upon them, and they now have become thoroughfares, whereas before they were not only impassable but dangerous from their depth and precipitous embankment. By having these two streets graded and paved the short dis-

tance described in this, the Department could get the alleys in the rear of the dwelling-houses on Biddle and Chase streets graded and paved, and thereby abate a nuisance detrimental to health caused by the flow of water and other matter which is now permitted to run out on to a large vacant lot and on to the unpaved beds of Ann and Wolf streets heretofore described. The cost of the foregoing much needed improvement would be small—and it is impossible to calculate the amount of good this would accomplish in a sanitary point of view in this locality. Justice to those who reside there and to the owners of the property, as well as the general health of the city, unquestionably demand it. I herewith append a map or sketch of the Chapel street district, which I think will serve to show that portion of it which the Department found necessary to take in hand in order to abate the nuisance described, the cost of which and to whom paid is also added. This amount is to be divided *pro rata* amongst the property benefitted, and the entire matter put into such shape as to reimburse the city for monies paid on this account.

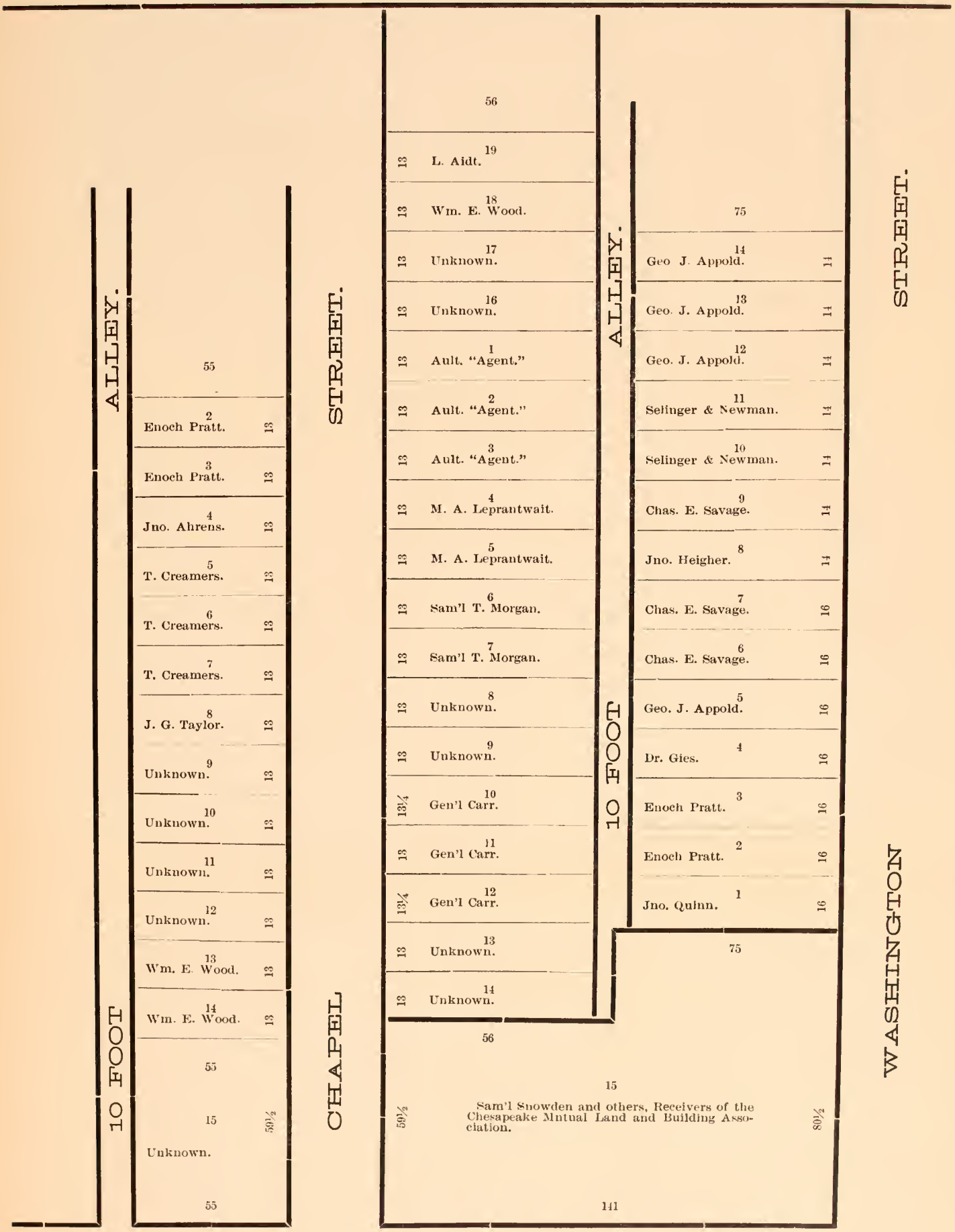
LIME AND CARBOLATE OF LIME.

The above articles have been used as deoderizing and disinfecting agents as directed by you, in liberal quantities, wherever it was found necessary—and doubtless to a very great advantage.

BILLS PAID ON ACCOUNT OF CHAPEL STREET IMPROVEMENT.

June 8th, 1877, F. F. Smith, pumping sinks, &c....	$ 58 25
June 29th, 1877, J. A. Elgert, filling.....	912 38
July 31st, 1877, Chas. Myers, carpentering.....	78 00

SKETCH OF CHAPEL STREET DISTRICT.



SCALE 40 FEET TO ONE INCH.

July 31st, 1877, John C. Shleuter, hardware.....	23 96
July 31st, 1877, Swain & Banks, lumber.....	200 43
July 31st, 1877, John C. Shleuter, hardware.....	10 07
August 17th, 1877, Swain & Banks, lumber.....	16 97
August 17th, 1877, C. W. Myers, labor.....	45 00
September 7th, 1877, G. W. Myers, labor.....	5 00
October 1st, 1877, C. W. Myers, paving and sand...	149 64
October 16th, 1877, G. W. Robinson, brick.....	64 00
October 16th, 1877, A. Schneider, grading & paving	1,124 73
	$2,688 43
Bills paid for paving Duncan and other alleys, also filling up lots.....	1,502 94
	$4,191 37
December 31st, 1877, Cash received for Poudrette compost, refuse, &c.....	$456 53

A tabular statement will be found accompanying this, showing the monthly expenditure for streets and garbage. In conclusion I beg to return you my sincere thanks for the courtesy you have at all times extended toward me, and it affords me pleasure to add that I have been very materially aided by your frequent and valuable advice in the varied duties devolving upon me in the position I have the honor to occupy.

I am, sir, very respectfully,

Your obedient servant,

A. E. SMYRK,

Ass't Comm'r of Health and General Sup't of Streets.

October 31st, 1877.

TABLE.

Showing cost of removing Garbage, Street Dirt, Sand and Ice.

MONTHS.	Totals.	Cost of collecting and removing Garbage.	Cost of collecting and removing Street Dirt, Sand, Ice and Snow.	Cost of Scraping and Sweeping streets and Market Houses.	No. of loads of Garbage hauled.	No. of loads Str't Dirt, Sand, Snow and Ice hauled.	Cost of Tools.
November, 1876	$13,171 50	$8,010 00	$3,018 00	$2,143 50	9,859	6,429	.....
December, "	11,689 62	6,408 00	2,918 25	2,363 37	8,454	6,428	.....
January, 1877	18,502 87	6,408 00	5,660 50	6,434 37	9,243	38,502	.....
February, "	16,642 59	8,070 00	5,152 50	3,480 09	12,191	43,107	.....
March, "	15,088 35	6,579 00	5,116 50	3,392 85	9,687	13,475	.....
April, "	12,359 25	6,696 00	3,217 50	2,445 75	9,872	7,435	.....
May, "	17,400 00	8,370 00	5,088 00	3,942 00	17,727	12,426	.....
June, "	15,232 55	6,696 00	4,578 75	3,957 80	8,905	10,986	.....
July, "	14,377 01	7,272 00	3,916 50	3,088 51	8,654	9,437	.....
August, "	15,688 25	7,830 00	4,547 00	3,311 25	9,918	10,612	.....
September, "	13,303 62	6,753 00	3,792 00	2,758 62	7,305	9,405	.....
October, "	9,756 49	5,553 00	2,499 00	1,704 49	6,097	6,395	.....
	$173,112 10	$84,585 00	$49,504 50	$39,022 60	111,912	174,637	.....

Cost of Tools	$3,528 73						$3,528 73
Garbage Contract	2,250 00	$2,250 00					
	$178,890 83	$86,835 00	$49,504 50	$39,022 60	111,212	174,637	$3,528 73
Deficiency, Paid December, 1877	$2,531 50	$1,407 00	$667 50	$457 00	1,734	1,493	
Pay Rolls, Paid December, 1877	1,125 00	1,125 00					
Paid on Contract							
	$182,547 33	$89,367 00	$50,172 00	$39,479 60	113,646	176,130	$3,528 73
Pay Rolls, November, 1877	$13,434 00	$7,392 00	$3,610 50	$2,431 50	8,721	8,203	
Contract, " "	1,125 00	1,125 00					
Pay Rolls, December, "	12,488 00	5,868 00	3,863 50	2,756 50	9,320	8,890	
Contract, " "	1,125 00	1,125 00					
	$28,172 00	$15,510 00	$7,474 00	$5,188 00	18,041	17,093	
	$210,719 33	$104,877 00	$57,646 00	$44,667 60	131,687	193,223	$3,528 73
Extra Appropriation, January 18, 1877	9,999 75		4,609 50	5,390 25		55,912	
To December 31, 1877	$220,719 08	$104,877 00	$62,255 50	$50,057 85	131,687	249,135	$3,528 73

Annual Report of Health Department of complaints made and notices, orders, &c., issued, together with the number of official letters written and received for the fiscal year ending October 31st, 1877, also with the addition of two months, making the entire report of fourteen months ending December 31st, 1877.

	Number of complaints made.	Notices issued to clean privies.	Notices issued to clean yards.	Notices issued to clean cellars.	Notices issued to grade and pave alleys	Notices issued to drain or fill lots.	Total number of notices issued.	Number of nuisances examined by Health Officers and Sanitary Inspectors of this office.	Number of orders issued for all purposes.	Number of orders attended to.	Number of official letters written.	Number of letters received.	Number of Special Permits issued to open sinks.
	12,640	10,086	386	438	398	368	17,676	2,462	1,162	1,080	622	284	8,290
Two months...	1,421	1,181	81	61	48	38	1,409	323	45	18	73	33	445
Total.....	14,061	11,267	467	499	446	406	13,085	2,785	1,207	1,098	695	317	8,735

RECAPITULATION.

Amount expended during the 14 months ending December 31st, 1877:		
For collecting and removing garbage	$104,877	00
Removing street dirt, sand, ice, snow, &c., including extra appropriation made January 18th, 1877	62,255	50
Scraping and sweeping the streets and cleaning the several Market Houses, including tools, &c	53,586	58
Total	$220,719	08
Grading and paving alleys, filling lots, &c	$4,191	37
Cash received for Poudrette, Compost, &c	$4,420	92
Stock of Compost, Poudrette, &c., on hand	2,500	00
Outstanding Bills for same	1,814	56
Outstanding Bills for alleys and lots	4,191	37
	$12,926	85
Number of loads of garbage removed for (14) months ending, December 31st, 1877	131,687	
Number of loads of street dirt, sand, ice, snow, &c., removed in the above time	249,135	
	380,822	

Average cost per load of 58 cents.

Included in the tabular statement on the preceding page will be found added the cost of the street cleaning and removal of garbage for the month of November and December, 1877

I have done this in order to comply with ordinance 57, approved January 29th, changing the date of the fiscal year from October 31st to December 31st.

I have but little more to add to what I have already written, excepting that my worst fears in reference to the defective box sewer draining the neighborhood of Wolf Washington, Eager and Chapel streets, have been fully realized—by this temporary sewer becoming choked up, which caused the filling up of numerous cellars in that vicinity with filthy water. To dig up and repair this sewer, situated as it is at a depth of from ten to eleven feet beneath the surface of the alley yards and dwellings under which it passes, was a task attended with considerable difficulty and expense. In consequence of the last break we were compelled to renew forty feet of this temporary and decayed box, and clean out over one hundred feet of it below the break, in order to drain the cellars and lots in this neighborhood. I reiterate the filling up to grade of Eager street, to intersect Chester street, and the grading and paving of Washington street from Eager to Monument street, is an absolute necessity, and should claim the attention of the proper authorities at the earliest possible moment. In anticipation of what is necessary to be done in that direction, the Health Department is now filling in with ashes, sand and street dirt, the bed of Eager street. While this will and is gradually bringing the streets to grade, it is necessarily slow in its operation, and should only be looked upon as an auxiliary to the work required at that point to abate the nuisance I have attempted to describe. Another much needed improvement exists at the intersection of Baker street with Fulton avenue, in the Northwestern section of the city, which is unpaved and becomes at times almost impassable. This Department has recently constructed a temporary road way at this point. It should be graded and paved.

Quite a large number of alleys have been paved and repaired during the past fourteen months. There are some yet to be done. I append a table of statistics which will serve to show the number of alleys for which notice have been issued, and other information pertaining to the working of this Department—hoping my efforts to fill acceptably the position I occupy may have met with your approval,

I am, sir, very respectfully,

Your obedient servant,

A. E. SMYRK,

Assistant Commissioner of Health,

and Gen'l Sup't of Streets.

December 31st, 1877.

REPORT

OF THE

Resident Physician

AT THE

MARINE HOSPITAL.

REPORT.

MARINE HOSPITAL,

PORT OF BALTIMORE, December 31st, 1877.

To the Honorable the Mayor and City Council:

GENTLEMEN:

I have the honor to submit the Report of the Marine Hospital for the fourteen months ending December 31st, 1877.

It will be seen the Report relates rather to Quarantine matters, than to affairs of hospital management, as the duties connected with this post are chiefly of the former character. Indeed the place should rather be designated "the Quarantine Station of the Port of Baltimore," as it can lay no claim whatever to the title of *Marine* Hospital. Such hospital accommodations as are upon the place, are intended mainly for the reception and treatment of citizens of Baltimore who may be affected with contagious disease. In fact, this is the City Pest Hospital, and its wards are only filled when the City is suffering from the infliction of some epidemic disease. It provides shelter and treatment to such seamen, or passengers, as may be found coming into port affected with such contagious diseases as small pox, yellow fever, cholera, etc.; to prevent the introduction of these diseases into the city. During the past

summer five cases of yellow fever, arriving on vessels from foreign ports, were brought into the hospital, of whom *three died.* There were also removed from foreign vessels two cases of small pox; these, together with one patient received from the city, recovered. In addition to these eight cases, eight cases of non-contagious diseases, (as subsequently developed) were cared for, as more particularly noted in Table I.

I am gratified at being able to state, that from neither of the cases of small pox, or yellow fever, did the disease extend; but that, owing to the precautions adopted, and other favoring circumstances, our city has been quite free from epidemic disease; although both small-pox, and yellow fever, have been unusually severe in a number of the ports with which we are in close and frequent communication.

As the Pest Hospital for the City, I do not think a more favorable location could be found. It is sufficiently near the city, by water and by land, for the speedy and safe transportation of patients; and at the same time is away from all lines of public travel and properly isolated. And, inasmuch as the city will always be compelled to keep in readiness a place for the reception of cases of small-pox, yellow fever, etc., I think the grounds and buildings at this point should be put, and kept, in a decent state of repair. Some of the buildings are not habitable, badly needing re-plastering and painting, and all of them sadly in need of furniture. The fencing, wharf and walks are also in a most delapidated condition.

As is more fully shown in Table II, the number of vessels boarded and inspected has been 893; a larger number, during the past year, than for any year since the ordinance of 1874 exempted a large class of coastwise vessels. The receipts from quarantine fees have been $5,962.52,--Table III--which amount is larger than has *ever before* been collected. As appears in

Table IV, 139 vessels were detained at the quarantine anchorage. This unusually large number is in consequence of the rule, which was adopted, requiring all vessels coming from infected ports, during the summer months, to remain at quarantine *one day;* for the purpose of cleansing, airing and fumigating all bedding, clothing, and the vessel itself. Only where actual sickness of a contagious nature existed on board, was it deemed necessary to detain a vessel longer than twenty-four hours.

The expense of maintaining the quarantine post and the hospital has been $18,838.84, as were fully set forth in Table V, and for the two Months, November and December, 1877, $1,194.23.

In the fall of 1875 the City purchased for the use of the Marine Hospital the small Steamboat, *Laura B. Treusch*, and when I assumed charge in 1876, I found that her boiler was not only insufficient, but that it was constantly needing costly repairs. Accordingly in August, 1876, as appears in my last report, I ceased using the boat, obtaining from the Harbor Board the loan of the Steamtug Tigress. The inspection certificate of the latter expiring in October last, and it being evident that expensive repairs would be required before another certificate could be obtained, I returned the Tigress to the Harbor Board, and, with the consent of the Mayor and Health Commissioner, contracted with Messrs. Reeder & Sons for a new boiler for the Treusch. This work is now being done, and when completed will, I am sure, give us a boat that is in every way adapted to the needs of the post. The commerce of the port has increased to such an extent that the use of such a boat is absolutely necessary for the prompt and efficient discharge of my duties.

Another year's experience but confirms my opinion that the "quarantine station" should be located at a point further down

the river. As above stated, I do not think a more desirable location could be selected for the "City Pest Hospital" than that now occupied; but it is not a suitable place for the quarantine officer; and it is, in my judgment, ill advised to compel that officer, and his crew,—constantly engaged in boarding vessels, many of them crowded with immigrants,—to *reside* at the pest hospital. There is always a danger of conveying disease to such vessels.

In this connection, I would again call attention to the desirability of Fort Carroll as a boarding station; a place of residence for the quarantine officer and his crew. I feel satisfied the quarantine station and pest hospital could be separated—both to be under the general supervision of the quarantine officer—at but little, if any, additional cost.

In removing the quarantine station further down the river, the habit of boarding vessels, by boarding-house, stevedores', ship chandlers', and other "runners," before they have been inspected, would be, to a great extent, broken up. These unauthorized persons constantly board vessels, far down the river, leaving before the approach of the quarantine officer, and are always liable to contract disease, or to carry its germs to the city. I respectfully suggest that more stringent laws be enacted to suppress this evil; at present, the quarantine officer is powerless in the matter. Again, the present quarantine *anchorage* is so near to the city, it is a matter of not uncommon occurrence for seamen, and others, on vessels under detention, to surreptitously visit the city at night, endangering the health and lives of those with whom they associate, and indeed of the whole community.

In my last report, I called attention to the present faulty system of quarantine inspection in the United States, and to the want of uniformity of laws and procedures in the dif-

ferent cities; and suggested the desirability of having the entire matter under the supervision and control of the General Government, with a central department. Further experience has confirmed me in the opinion that such a change would be beneficial to all concerned.

During the past season Dr. Martin P. Scott acted as my assistant, and was most efficient in the discharge of all the duties of the place.

The boatmen, and all other employées upon the place, have discharged their respective duties in the most satisfactory manner.

Very Respectfully,

Your obedient servant,

E. LLOYD HOWARD, M. D.,

Marine Hospital Physician.

TABLES.

TABLE I.

Showing the Number of Patients remaining November 1st, 1876, together with those Admitted, Discharged and Died during the Fourteen Months ending December 31st, 1877.

DISEASES.	Remaining Nov. 1st, 1876.	Admitted.	Discharged.	Died.	Remaining Dec. 31st, 1877.
Yellow Fever	1	5	3	3	.....
Malarial Remittent Fever	.....	4	2	2	.....
Variola—Discrete	.....	3	3	.....	.....
Erysipelas—Facial	.....	1	1	.....	.....
Uraemia	.....	1	.....	1	.....
Pneumonia	1	.....	1	.....	.....
Hysteria	1	.....	1	.....	.....
Ulcer	.....	1	1	.....	.....
Wounds—Incised	.....	1	1	.....	.....
Quarantined	1	.....	1	.....	.....
Total	4	16	14	6	.....

TABLE II.

Showing the Number and Class of Vessels Boarded and Examined at the Quarantine Station for the Fourteen Months ending December 31st, 1877.

MONTH.	CLASS OF VESSELS.					
	Steamships	Ships.	Barks.	Brigs.	Schooners.	Total.
1876.						
November	10	.....	.....	1	.....	11
December	6	.....	.....	.....	.....	6
1877.						
January	5	.....	.....	.....	.....	5
February	4	.....	1	.....	.....	5
March	4	.....	.....	1	1	6
April	4	1	1	.....	1	7
May	22	8	59	16	52	157
June	17	6	80	24	46	173
July	18	4	44	17	37	120
August	20	4	55	14	27	120
September	27	8	55	12	26	128
October	22	13	75	10	22	142
November	6	.....	.....	1	.....	7
December	5	.....	.....	1	.....	6
Total	170	44	370	97	212	893

TABLE III.

Showing the Amount of Money Received for Quarantine Fees for the Fourteen Months ending December 31st, 1877.

MONTH.	CLASS OF VESSELS.					
	Steamships	Ships.	Barks.	Brigs.	Schooners.	Total.
1876.						
November	$151 91			$ 2 00		$153 91
December	135 82					135 82
1877.						
January	127 81					127 81
February	114 26		$ 2 71			116 97
March	100 54			2 14	$ 2 00	104 68
April	106 23	$ 6 88	3 91		4 06	121 08

May	271 60	79 81	314 40	43 97	127 90	837 68
June	217 31	59 45	450 00	68 59	117 53	912 88
July	209 23	37 43	237 34	46 12	97 81	627 93
August	269 01	42 61	322 97	35 26	69 41	739 26
September	304 50	77 46	332 03	24 07	71 24	809 30
October	255 03	165 03	455 52	28 58	59 15	963 31
November	164 84			4 05		168 89
December	140 86			2 14		143 00
Total	$2,568 95	$468 67	$2,118 88	$256 92	$549 10	$5,962 52

TABLE IV.

Showing the Number and Class of Vessels Detained at Quarantine Station for the Fourteen Months ending December 31st, 1877.

MONTH.	CLASS OF VESSELS.					
	Steamships.	Ships.	Barks.	Brigs.	Schooners.	Total.
1876.						
November	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....
1877.						
January	.....	.....	.....	.....	.....	.....
February	.....	.....	.....	.....	.....	.....
March	.....	.....	.....	....	.....	.....
April	.....	1	.....	.....	.....	1
May	.....	.....	.....	1	.....	1
June	2	.....	15	16	8	41
July	2	1	4	13	9	29
August	4	.....	8	6	2	20
September	7	1	6	6	11	31
October	6	1	.....	.....	9	16
November	.....	.....	.....	.....	.....	.....
December	.....	.....	.....	.....	.....	.....
Total	21	4	33	42	39	139

TABLE V.

Showing Expenditures for the fourteen months ending December 31*st*, 1877, *together with the amount of money collected.*

Expenditures from Nov. 1st, 1876, to Nov. 1st, 1877.	
Salary Account	$12,297 25
Groceries and Sundries	1,730 14
Fresh Meats	1,347 00
Drugs and Medicines	150 89
Fuel for Hospital	108 00
Fuel for Boat	324 45
Repairing Harness, Wagon, Stoves, &c	378 83
Naval Stores	81 56
Repair of Tug	102 11
Typho Malarial Fever	274 23
Milk $51.20, Bread $122 50	173 70
Printing, $3.25; Cleaning Sinks, $20.00; Digging Well, $40.00	63 25
Temporary Engineer, &c	184 75
Clothing, $93.12; Plumbing, $186,92; Cleaning $66.00	346,04
Seed and Tools, $43.65; Plants, $22.60; Ice, $130.21	196 46
Furniture, &c., $378.93; Wall-paper, $56.53	435 46
One Jagger Wagon	175 00
Dr. E. Lloyd Howard, "Sundries,"	469 72
	$18,838 84

TABLE V.—Concluded.

Amount brought forward		$18,838 84
Expenses for November 1st to December 31, 1877:		
Wages, $770.00; Groceries, $100.38: Fresh Meat, $98.18	$968 56	
Disinfectants, $33.75; Repairs Wagon, $17.35	51 10	
Coal for Hospital	133 50	
Blankets	26 00	
Poudrette	15 07	
		$1,194 23
Total expenditures for fourteen months, ending December 31st, 1877		$20,033 07

EXPENDITURES AND RECEIPTS.

Expenditures for twelve months, ending October 31st, 1877	$18,838 84
Less receipts for twelve months, ending October 31st, 1877	5,650 63
Expenditures above collections—twelve months	$13,188 21
Expenditures for two months, November and December, 1877	$1,194 23
Less receipts for two months, November and December, 1877	311 89
	$ 882 34

ANNUAL REPORT

OF THE

BOARD OF MANAGERS

OF THE

House of Reformation and Instruction

FOR COLORED CHILDREN,

FOR THE

Year Ending November 30, 1877.

Managers and Officers of the House of Reformation, 1877.

President.

JOHN R. COX.

Vice-President.	Secretary.	Treasurer.
WM. R. LINCOLN.	WM. M. BOONE.	WM. E. WOODYEAR.

Board of Managers on Part of the Subscribers.

JOHN R. COX, CYRUS BLACKBURN, C. C. MAGRUDER,
G. S. GRIFFITH, ALEX. P. HILL, WM. R. LINCOLN,
EDW. STABLER, JR., WM. M. BOONE, LAWRENCE THOMSEN,
B. FRANK DEFORD, W. E. WOODYEAR.

Managers on Part of the State.

CHARLES E. PHELPS, WM. S. WHITELEY.

Managers on Part of the City.

ENOCH PRATT, CHAS. T. BOEHM.

Executive Committee.

ENOCH PRATT, *Chr'n*, ED. STABLER, JR., *Sec'y*, CHAS. T. BOEHM,
JOHN R. COX, CHAS. E. PHELPS, CYRUS BLACKBURN,
WM. R. LINCOLN.

Finance Committee,

ENOCH PRATT, WM. S. WHITELEY,
LAWRENCE THOMSEN.

School Committee.

WM. R. LINCOLN, G. S. GRIFFITH,
WM. S. WHITELY.

RESIDENT OFFICERS OF THE HOUSE.

Superintendent.

JOHN W. HORN.

Assistant Superintendent, (Acting.)

JAMES HANLON.

Matron.

MRS. JOHN W. HORN.

Teachers and General Assistants.

CHAS. H. EWING,
Teacher of Family Building No. 1.

E. H. COMEGYS,
Teacher Family Building No. 2.

F. P. FITZGERALD,
Teacher Family Building No. 3.

NICHOLAS LANGENFELDT,
Baker.

GEO. HECK,
Overseer Tailor Shop.

JOHN T. NORFOLK,
Overseer Shoe Shop.

WILLIAM FRENCH,
Overseer Boys' Dining Rooms.

KATE SNYDER,
Overseer of Laundry.

Gardener.

Farmer.

JOHN W. KANEEN.

REPORT.

To the Governor and General Assembly of Maryland, and the Mayor and City Council of Baltimore:

The Board of Managers of the HOUSE OF REFORMATION AND INSTRUCTION FOR COLORED CHILDREN, herewith present their fifth annual report. In our previous annual reports, we say, "It is with pleasure we review the work of the year, and announce the success of the Institution as a reformatory for colored children." Each subsequent year demonstrates the wisdom of your appropriations for its establishment and support. We are pleased to say that in many respects we have more than realized our expectations.

Since the Institution was opened, Jan. 1st, 1873, we have received 408 boys, and we have now 208 under our care. For particular mention in reference to their management, health, &c., during the past year, we refer to the accompanying reports of the Superintendent, attending Physician and the Treasurer.

The Institution was visited during the past year by Dr. C. W. Chancellor, Secretary of the State Board of Health. He made a very thorough examination of every department, and reported the result of his inquiries with much that is

interesting and instructive. We refer to it with pleasure and call your special attention to the following extract from it:

* * * * * *

The necessity of such an Institution grew out of the vicissitudes which public events have occasioned in the last fifteen years.

"It could not be expected that the negro would emerge naked in mind from a condition of slavery and place himself either with regard to habits of industry or moral cultivation, on a level with the more polished portion of society, without example and assistance; these have been wisely supplied by this Institution, where colored children are trained in habits of civilization, and instead of being thrown friendless upon the world, are, after a certain time, provided with suitable situations and put in the way of becoming useful citizens.

"The more cultivated the intellects of these people become, the less will vicious excitements be necessary to them, and the less will their political rights be instruments of mischief. This truth is becoming generally admitted and its conviction must continue to force its way into the minds of all thinking men, whatever their political views may be.

* * * * * *

"The buildings, it will be seen, embrace the requisite provisions for security, employment, instruction, and separation from contaminating associations. The utmost economy has been consulted throughout, and the managers, never forgetting that it was their first duty to advance the object committed to their care, have been careful at the same time, neither to incur nor permit any expense which could be spared without detriment to the principal design. The buildings are substantial and plain, the furniture simple and

cheap, and the arrangements for the conduct of the house are upon a scale as reduced as practicable.

* * * * * *

"If the theory of this Institution be perfectly understood, there is little danger that its practical effects will not force themselves into notice. The number of inmates have increased with rapidity which threatens to be greatly disproportionate to the means for their support and instruction; there are now 186 boys in the Institution, and the managers say, 'a greater number cannot be conveniently accommodated in the present buildings.' There is also great need of outhouses, such as barns and stables, and of a large amount of fencing, but as the treasury is exhausted, the Board of Managers will be forced to appeal to the State and to the city for further aid. The Institution certainly deserves to enjoy a wider and more substantial recognition of its value and importance than it has yet received. That good effects have already flowed from it cannot be doubted, and it is equally certain that the care and attention bestowed upon the inmates, together with some encouragement to do well, will in the future save many who would otherwise—sooner or later—be immured in some prison and become worse than lost to society. It is to be hoped that the Legislature and City Council will evince the same liberal spirit towards this undertaking which has always characterized them when any worthy object has been presented for their support.

* * * * * *

From the foregoing, and the accompanying report of the Superintendent, you will perceive that much is yet needed to adapt our Institution fully to the purposes for which it was designed. We need another family building and respectfully ask of the Legislature an appropriation of $15,000

for this purpose, in addition to our usual yearly appropriation of $10,000 for support.

Various other buildings for shops of different kinds are necessary, and must be supplied before our inmates can derive the full benefits of the Institution. We refer to the accompanping report of the Treasurer.

The amount received from the City during the year 1877 was $20,000. We respectfully ask from the Mayor and City Council an appropriation of the same amount for the year 1878.

Respectfully,

JOHN R. COX, *President.*

WM. M. BOONE, *Secretary.*

Report of the Treasurer.

REPORT OF THE TREASURER.

House of Reformation and Instruction for Colored Children of Maryland, in account with Wm. E. Woodyear, Treasurer, from 30th November, 1876, to 30th November, 1877.

Dr.				Cr.		
1877.				1876.		
Nov. 30,	To Cash paid for improvements at "Cheltenham," such as a Barn, Ice House, introduction of Water into Buildings, &c.....		$8,746 83	Nov. 30,	By Balance as per account rendered this day.....	$2,010 95
"	" " General Expenses, viz.: Clothing for boys, provisions, coal, farming implements, fertilizers, mules, salaries, repairs, &c., &c.....		22,466 36	1877. Nov. 30,	By Cash, received by the last quarter's installment of appropriation by the Maryland Legislature for the support of the Institution for the year 1876	2,500 00
	Balance.....		1,555 29	"	" The three first quarter's installments of the appropriation by the Maryland Legislature for the support of the Institution for the year 1877...	7,500 00

	Nov. 30,	By Cash. Amount appropriated by by the Mayor and City Council of Baltimore for the support of boys from the City, from 31st Oct., 1876, to 31st Oct., 1877	20,000 00
	"	" For board, &c., of pay-inmates	655 00
	"	" For old barrels and shingles sold	60 53
	"	" For shoes made by boys, sold	12 00
	"	" For hire of band	30 00
$32,768 48	1877.		$32,768 48
	Nov. 30.	By Balance in bank to credit of Treasurer	$1,555 29

BALTIMORE, Nov. 7, 1877.

WM. E. WOODYEAR, *Treasurer.*

Superintendent's Report.

REPORT.

To the Board of Managers:

GENTLEMEN:

At the close of another year in the history of our Institution it becomes my duty, in accordance with the By-Laws, to present for your consideration, in this my fifth annual report, a brief synopsis of what has been accomplished during the year just past, as also a few suggestions which we think should necessarily claim your attention during the year 1878.

We commenced the past year with 186 boys, which was, as predicted in our last report, rapidly augmented, until we have now upon our roll 207. In our three family buildings, containing school-room, play room, work-room, lock-ups, officers apartments, and two dormitories 30 x 35 and 30 x 31 feet respectively, we provide sleeping accommodations for 69 boys on the average, which you perceive is neither conducive to health, comfort or discipline, at the same time it prevents a proper classification, as it becomes more a matter for the equalization of numbers than a division suitable to their various conditions, habits, ages, &c. This is attended to so far as we are able, but you will see how imperfect must be the system under such circumstances, as each family build-

ing was designed for 50 boys, and can only accommodate that number comfortably. I know that under the law you may refuse to take them whenever in your judgment you may consider it injudicious so to do, but might this course not be doing injury to many boys who, if taken and properly cared for, would became useful members of society, but if rejected, continue in their downward career until eventually they find themselves the inmates of our jails and penitentiary. It will not do therefore, in my judgment, for the City and State to pause in the great work they have inaugurated, or only partially provide for the reformation of this large and constantly increasing class of its citizens.

To accomplish this, buildings must be erected to meet all the demands made upon us, as also to properly classify and arrange our inmates in accordance with their ages, dispositions and habits, that the best results may be arrived at in the shortest possible period. Many of those who were sent us a few years ago almost outlawed, are now at work with no desire for return to their former haunts or practices, and giving satisfaction to their employers, and placing the surplus labor of the Institution in demand among the farmers and artizans of our State.

By reference to my last annual report it will be seen we were laboring under great inconvenience from want of proper out-buildings for our stock, crops and farming implements. This, I am happy to say, is now being remedied. We have in course of construction a very fine bank barn, amply large for all the requirements of the Institution for some years to come. With the facilities it gives we shall be able to compost large quantities of manure. We are now finishing a substantial ice house of brick, 20 feet square by 18 feet deep. In addition to the above improvements we

have erected a very neat freight house on our own land at the station.

Since the opening of the house we have suffered more or less from want of Hospital accommodations for the proper care of our sick, the addition to the farm-house used for the purpose being too small. To remedy this we have enlarged the tool house and converted the same into wards for the sick. This gives us four comfortable, well ventilated wards which we conceive will meet our requirements. This improvement was made at the urgent suggestion of Dr. C. W. Chancellor, at the time of his visit to us during the past spring.

It gives me great pleasure to be able to report that for the first time in the history of the Institution we have an abundant supply of water for the main and family buildings, with openings and hose on every floor of each, to be used in case of fire. The three springs now piped and flowing into one common reservoir of 20,000 gallons will give all the water required, even in dry seasons. The Knowles steam pump, put up by Messrs. Basshor & Co., is working to our satisfaction, drawing the water over 600 feet and forcing a two inch stream into the large iron tank of 8000 gallons in main building, a height of over 69 feet, and to the tanks in the three family buildings, aggregating 10,000 gallons, with seeming great ease and regularity. Steam from the boiler used to drive the pumps has been introduced into our laundry, and an excellent drying-room has been constructed in connection with the laundry. Steam has also been introduced into the kitchen for washing, cleaning, &c.

By reference to Table I you will observe we have still been keeping down our numbers by procuring homes for such of our inmates as has given evidence of a desire to lead a better life, and it is gratifying to be able to say that

a large majority of them are doing well, contented in earning an honest subsistence for themselves. Nine out of every ten of these boys have been taken from the very lowest purlieus of society, which in my estimation, speaks volumes in behalf of this and kindred Institutions claiming the support of our City and State.

Table No. IX shows you about what has been produced, but not what has been done on the farm. Besides our regular work we have been cleaning, clearing, fencing, draining, levelling, making and repairing roads, &c., in an effort to make our home not only attractive, but productive. This work must of necessity progress slowly. We hope soon to have grass and vegetation where none grew before. Our location is good, much of the soil kind and susceptible of improvement with an abundant supply of delicious spring water and of gravel to make and keep in repair the roads.

Annexed you will find the report of Dr. John T. Eversfield, our attending physician, which will inform you as to the health of the House during the year. From it you will see that a very large majority of our boys in ill health are suffering from scrofula. Many of them come to us looking well enough apparently, but who, upon a medical examination, are shown to be fearfully diseased. Many of them improve very rapidly under treatment, while others are continually under the hands of the physician. We hav had six deaths during the year, five at the House and one in Baltimore. This is a larger percentage than we have had heretofore, but I am satisfied their cases were hopeless when sent to us. Our physician has been constant in his attentions both day and night. In most of the cases that proved fatal, he was aided by Dr. J. M. S. Maccubbin, who was

called to his assistance, and who has always shown a lively interest in the health of our boys and the success of our Institution.

The nucleus of a library was started the past year, and a number of well selected books sent us which has been a source of much profit and pleasure to our boys. The moral lessons they teach may be the means of leaving lasting impressions for good upon the minds of those who at present seem so intent upon their perusal. Any donations of suitable books or periodicals will be most acceptable.

Our school duties have been continued as usual during the year, and I am pleased to report that as a general thing the boys are making satisfactory progress.

Great advancement has been made in both vocal and instrumental music.

We are under renewed obligations to the Revs. Sam'l R. Gordon, of the Protestant Episcopal Church, T. J. Cross, of the M. E. Church, and Father Homan, of the R. C. Church, for their labors in behalf of our inmates. These gentlemen have been faithful in ministering to the spiritual wants of our boys. With them it has been a labor of love at great personal inconvenience, and with no hope of reward.

The proprietors of the following journals having kindly continued the donation of their valuable publications, will please accept our thanks:

MARLBOROUGH GAZETTE, Prince George Co., Md.
PRINCE GEORGIAN " "
PORT TOBACCO TIMES, Port Tobacco, Charles Co., Md.
MARYLAND INDEPENDENT " "
ANNAPOLIS REPUBLICAN, Anne Arundel Co., Md.
EPISCOPAL METHODIST, Baltimore, Md.
MONTHLY RECORD, " "
AMERICAN FARMER, " "
MARYLAND FARMER, " "
CHRISTIAN RECORDER, Philadelphia, Pa.
HOME VISITOR, Chicago, Ill.

Our thanks are also due and are hereby tendered Messrs. J. W. Bond & Co.; W. S. Whiteley and Chas. T. Boehm, for donations of books; to Farmers & Planters Bank for Directory of 1876; to Enoch Pratt, Esq., for drop light, window cornices, papers, &c.; to C. Y. Davidson & Co., for chandeliers for church; to Wm. H. Cole for axes and helves; to ——— for one copy each of the Weekly Sun, American and Gazette; and to our neighbors, Messrs. A. P. Hill and Nathan Diehl, for many acts of kindness and assistance they have at all times rendered us.

Whole number received into the House since its opening January 1, 1873..... 408

TABLE I.

Showing the number received and discharged with the general condition of the House for the year ending November 30th, 1876.

Number in House at the close of last year.....	186	
" since received.....	92	
" " as boarders.....	4	
" " as runaways.....	2	
	——	284
Indentured or sent to places.....	24	
Leave of absence.....	8	
Escaped	19	
Discharged as reformed.....	9	
Died.....	6	
Infirmary.....	2	
Became of age.....	1	

Expiration of sentence	4	
Sick Leave to parents	2	
Sent to Blind Asylum	1	
		77
In House November 30, 1877		208

TABLE II.

Showing by whom they were Committed.

Criminal Court for Baltimore City	15
Circuit Court Howard County	2
" " Baltimore County	1
United States Circuit Court, Alabama	1
" " South Carolina	2
" " Virginia	1
Circuit Court Montgomery County	1
Justices of Peace for Baltimore City	56
" " for Baltimore County	2
" " for Washington County	6
" " for Anna Arundel County	4
" " for Frederick County	2
" " for Prince George County	2
" " for Cecil County	1
	96

TABLE III.

Showing offences for which they were committed.

Incorrigible	33
Vagrancy	22
Larceny	21
Stealing	4

Burglary	1
Stealing from United States Mail	4
Vicious conduct	10
Murder	1
	96

TABLE IV.

Showing the supposed ages when received.

7 years of age	1
8 "	3
9 "	4
10 "	4
11 "	7
12 "	14
13 "	16
14 "	16
15 "	12
16 "	7
17 "	7
18 "	5
	96

TABLE V.

Showing the supposed nativity of the parents of all received during the year.

Baltimore City	43
Other parts of Maryland	31
Louisiana	1
Virginia	10
Pennsylvania	4

Washington City	1
Georgia	1
South Carolina	2
Ohio	1
Delaware	1
Massachusetts	1
	96

TABLE VI.

Showing as near as can be ascertained the nativity of those received.

Baltimore City	47
Other parts of Maryland	29
Pennsylvania	3
Georgia	1
Virginia	5
Ohio	1
Delaware	1
Washington City	2
Louisiana	1
South Carolina	2
Unknown	4
	96

TABLE VII.

Showing as near as possible their domestic condition, the number who have lost their fathers, mothers, or both parents. Also the habits of their parents, temperate, intemperate or separated.

Have lost their fathers	12
" " mothers	8
" " both parents	12

Whose fathers were temperate	30
" " " intemperate	12
" mothers were "	4
" parents were separated	0
" habits were unknown	18

TABLE VIII.

Showing educational attainments.

Did not know the alphabet	21
Knew alphabet only	23
Beginning to spell	9
" " read	9
Could read easy lessons	16
" " books generally	12
" " and write	6
" cypher in addition	10
" " " subtraction	4
" " " division	6

TABLE IX.

Showing the products of farm and garden.

20 tons Hay.	4,011 gals. Milk.
15 Lambs.	100 bus. String Beans.
50 tons Corn Fodder.	2½ doz. Ducks.
3 bbls. Gooseberries.	50 bus. Potatoes, Sweet.
200 bbls. Corn.	64 bus. Sprouts.
100 quarts Strawberries.	200 bunches Celery.
75 bus. Peas.	2 tons Rye Straw.
200 doz. Eggs.	9 Calves.
20 bus. Lima Beans.	35 bus. Rye.
60 Turkeys.	5 bus. Currants.

300 bus. Tomatoes.	10 bus. Cucumbers.
1,500 heads Lettuce.	350 lbs. Butter.
664 doz. Sweet Corn.	50 bus. Beets.
5 tons Oat Straw,	8 doz Chickens.
150 quarts Blackberries.	200 bus. Potatoes, Irish.
145 bus. Oats.	250 bus. Turnips.
50 bus. Grapes.	23,000 heads Cabbage.
30 bus. Carrots.	20 doz. Egg Plants.

TABLE X.

Showing the number of officers and others employed, with aggregate of their Salaries.

Superintendent,	Matron,
Physician,	Tailor in charge of Shop,
Farmer,	Overseer boys Dining Room,
Cook,	Three Male Teachers,
Carpenter,	Gardener,
Acting Assist'g Supdn't.	Overseer Shoe Shop,
Baker,	Laundress.

Aggregate of salaries and wages.....$4,027.67

I must in closing my report return acknowledgements to you, gentlemen of the Board, for your uniform kindness and forbearance to me personally, in the discharge of the trying duties of my position, as also for the interest you have ever shown in the success of our Institution and the welfare of its inmates.

To the officers who have labored with me I am under obligations. They have, I think, as far as possible, endeavored

to do their duty, although at times their positions prove very trying to their patience, yet they have filled them with commendable forbearance, and co-operated with me in all things looking to the successful management of the Institution.

I have the honor to be,

Very respectfully,

JOHN W. HORN,

Superintendent.

HOUSE OF REFORMATION,

Cheltenham P. O., Prince Georges Co., Md.

Report of Attending Physician.

REPORT.

December 10, 1877.

To Gen. John W. Horn, Superintendent
of the House of Reformation and Instruction
for Colored Children.

Dear Sir:

I have to report that sixty-seven cases were admitted and treated in the Hospital of this Institution during the year ending the 30th of November, afflicted with the diseases named:

Scrofula, 32; Ophthalmia, 6; Frostbite, 1; Malarious fever, 1; Burn, 1; Scald, 1; Sore Throat, 2; Spinal Disease, 1; Rheumatism, 1; Dropsy, 1; Spinal Meningitis, 1; Typhoid fever, 2; Scarlet fever, 2; Epilepsy, 1; Injury of hand and amputation of fingers, 1; Lockjaw, 1; Whooping cough, 3; Bilious Typhoid fever, 1; Inflammation of bowels and brain, 1; Consumption, 1; Eczema 1; Pneumonia 1; Eruption from contact with poison-oak, 4.

Of the number mentioned I have to report five deaths, viz.: No 157—James Dixon, of Lock-jaw, April 18th. No. 33—William Brown, of Scrofula, with tubercle of the bowels, May 12th. No. 133—Matthew Bloe, of Spinal

Meningitis, June 12th. No. 337—John Robertson, of consumption of the lungs after Scarlet fever, June 25th. No. 176—James Black, of Scrofula, July 3.

Three cases suffering with *purulent* ophthalmia were removed from the Hospital of this Institution to that of the University of Maryland. One of these cases died, one was returned to this Institution blind, and the other is now in Baltimore, cured.

The number of sick cases prescribed for out of the Hospital was sixty-one for the year mentioned. Of this number one boy, No. 263—George Williams, died suddenly with inflammation of the brain, owing to fracture of the skull with compression. This boy had been *trephined* before he was sent here, and had convulsions of an *epileptic character* one or two days after he entered this Institution. These convulsions afflicted this poor creature at periods until his death. A *fit subject* for an alms-house or a hospital, instead of an Industrial School.

J. THOMAS EVERSFIELD, M. D.

ANNUAL REPORT

OF THE

Commissioners for Opening Streets,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

REPORT.

OFFICE OF THE COMMISSIONERS FOR OPENING STREETS,

CITY HALL,

Baltimore, January 1st, 1878.

To the Honorable the Mayor and

City Council of Baltimore.

GENTLEMEN:

We have the honor herewith to submit to you a statement of the operations of this department from November 1st, 1876, to December 31st, 1877:

The following list comprises the streets and alleys opened and closed during the above mentioned time, also the amount of damages, expenses, benefits and cost to the City for each and every street, &c., viz:

Street, from Street to Street.	Damages.	Expenses.	Benefits.	Amt. on Mayor & City Council.
McHenry, from Bentaloe to Monroe	$2 00	$579 21	$525 77	$55 44
A triangular piece of ground, from Oliver to North avenue	3,000 00	188 78	.....	3,188 78
Valley, from Eager to Hoffman	9,354 00	518 49	9,588 15	284 34
Beason, from Hull to Decatur	2 00	258 94	260 94	.....
Hull, from Nicholson to Patapsco river	1 00	376 57	365 17	12 40
15 feet alley, from Presstman to Wilson	464 17	333 62	797 79	.....
St. Paul, from John to North avenue	4,129 13	595 53	4,724 66	.....
Pitcher, from Pennsylvania avenue to Fremont	25,301 00	414 46	7,988 32	17,727 14
Race street sewer, from West to Sharp	1,192 26	416 05	1,119 86	488 45
Marshall, from Dorsey to Port Warden's line	14,103 25	386 85	10,000 00	4,490 10
Decatur, from Claggett to Beason	6,601 00	451 85	5,194 25	1,858 60
Porter, from Claggett to Beason	13,200 00	451 82	10,961 82	2,690 00
Closing Humes, from High to Exeter	1,724 37	275 63	2,000 00	.....
Wilcox, from Chase to Eager	20 00	248 31	268 31	.....
Jones, from Fort avenue to Claggett	6,600 00	344 08	4,660 00	2,284 08
Marshall, from Wells to McComas	59,329 68	2,350 17	32,817 52	28,862 33
McKim, from Eager to Hoffman	17,233 31	626 87	13,878 46	3,981 72
Widening Eutaw, from Laurens to North ave	140,322 96	967 44	80,118 59	61,171 81

Forrest, from McHenry to Pratt	1 00	276 78	277 78	.....
Broadway, from Gay to North avenue	102,325 71	1,762 50	75,406 73	28,681 48
Ensor, from Chase to Hoffman	4,980 17	406 71	4,366 36	1,020 52
Eden, from present terminus to Lanvale	50,251 58	1,376 75	31,124 30	20,504 03
Holliday, from Fayette to Baltimore	5,678 00	205 03	1,768 00	4,115 03
Bond, from Hoffman to North avenue	17,435 33	726 19	16,443 89	1,717 63
Sterrett, from Columbia avenue to S. Paca	2 00	350 53	352 53	.....
Elm, from Cathedral to North avenue, repealed	.....	385 90	385 90	.....
Luzerne, from Lombard to Oliver, repealed	.....	1,120 35	.....	1,120 35
Federal Hill, declared invalid by law officers	.....	632 32	.....	632 32
	$483,253 92	$17,027 73	$315,395 10	$184,886 55

ITEMS OF EXPENSE ACCOUNT.

Per diem Commissioners and Clerk	$3,152 00
City Surveyor	8,396 62
Magistrate	32 00
Stationery	170 00
Auctioneer	670 00
Publishing legal notices	4,607 11
	$17,027 73

FEDERAL HILL.

In the condemnation of Federal Hill as a public park, previous to the payment of the awards, a communication was received by the City Comptroller from the law officers of the City in reference to the validity of the ordinance, who, in substance, stated that they were satisfied that the proceedings were invalid, because the Act of 1876, chapter 20, approved February 18th, repealed the former statute under which this ordinance was passed. Such being the condition of this condemnation, we would respectfully recommend either the purchase of the property in accordance with the Act of 1876, or dispose of it by repeal.

LUZERNE STREET.

In regard to Luzerne street, appeals having been taken to the City Court, and the amounts on the City largely increased, and believing said increase far in excess of any benefits that could be derived therefrom, we, in connection with the City Solicitor, laid the facts before the Mayor and City Council, resulting in the repealing of said ordinance. Notice of application to condemn and open Luzerne street, from Lombard to Madison streets, has been published, which, we think, will be ample for all practical purposes, and at the same time at a comparatively trifling cost to the City.

PORTER AND DECATUR STREETS.

Appeals were taken in both of these streets, which resulted in the striking out the benefits charged upon the property actually fronting upon said streets, when opened, and where we had allowed full compensation for the bed of the streets. This we regard as an unequal distribution of the costs of opening said streets, as it compels the City to bear the burden of constructing a highway through a large tract of property for the owners' accommodation (and certainly benefitting the property, almost exclusively,) without any cost whatever.

The benefits exempted by the jury amount to seven thousand three hundred and sixty-one $\frac{25}{100}$ dollars, which, if the ordinance be not repealed, will add that amount to the cost on the City.

ELM STREET.

This ordinance was repealed after the final return, upon the petition of the property owners, who had originally applied for the opening, the repeal being conditional that the petitioners pay all the expenses incurred in the condemnation.

REDUCTION OF EXPENSES.

We are of opinion that such of the condemnation expenses as are not fixed by ordinance can be reduced by an amendment to section 22, Article 43, Baltimore City Code, whereby certain expenses may be paid within thirty days, or any reasonable time after service has been performed.

As the law at present stands, long and vexatious delays occur before a settlement is had, which is detrimental to the City's interests.

STREETS, &c., NOW IN PROCESS OF OPENING.

Race street, from Cross street to Fort avenue.
Bruce alley, from Patterson avenue to Townsend street.
Vincent alley, from Patterson avenue to Townsend street.
Covington street, from Fort avenue to Donaldson street.
Patterson Park avenue, from Monument street to Oliver st.
Burke street, from Baltimore street to Oliver street.
Cannon street, from Baltimore street to Oliver street.
Collington avenue, from Hampstead street to Hoffman street.
Caroline street, from its present terminus to North avenue.
Spring street, from its present terminus to Townsend street.
Oliver street, from Harford avenue to Wolf street.
Federal street, from Aisquith street to Wolf street.
Marshall street, from Randall street to Wills street.
Marshall street, from Beverlin street to West street.
Presstman street, from Gilmor street to the western city limits.
Chatsworth Run sewer.
Lawrence street, from Fort avenue to Clement street.

Jones street, from Fort avenue to Beason street.
Sharp street, from Ostend street to Port Warden's line.
Wilmer alley, from Mosher street to Smith street.
Calvert street, from Biddle street to John street.
Biddle street, from Washington street to eastern city limits.
Rutter alley, from Mosher street to McMechin street.
Douglas street, from its present western terminus to Gay st.
Addison alley, from Front street to High street.

EXAMINATION OF TITLES.

We alluded in our last Annual Report (1876) to the embarrassments under which this department labored in failing to obtain abstracts of titles. We regret to say that this difficulty has continued during the present year, and after delaying our work a reasonable time, we were compelled, in consequence of the large number of accumulated ordinances, to proceed without abstracts, relying upon our own knowledge, assisted very materially by the City Surveyor, at the same time observing due caution by proceeding only with such condemnations where there was little or no doubt of the ownership or of a previous dedication. Before, however, these condemnations can be completed by the payment of damages, it will be necessary that the titles be fully perfected, and a duplicate abstract placed in the office of the City Comptroller.

The amount charged to the City in the condemnation and opening of streets during the past year, is slightly in excess of the previous one, owing to the large accumulation of ordinances caused by delays in obtaining titles; we are however, of opinion that in view of the benefits accruing to the city by increasing the taxable basis, developing eligible building lots, and affording increased facilities to local trade, which the progress of our city demands, will fully justify and repay the expenditure.

Respectfully submitted,

JOHN B. WILLIAMS,
JAS. S. MORROW,
ISAAC COX,
Commissioners.

R. F. GREEN, *Clerk.*

ANNUAL REPORT

OF THE

CITY LIBRARIAN,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

REPORT.

BALTIMORE, January 2d, 1878.

To the Honorable the Mayor
and City Council of Baltimore.

GENTLEMEN:

The City Librarian begs leave to present for your consideration the following report, as a synopsis of what has transpired in the Library Department during the fiscal year ending 31st October, 1877; also for November and December, a period of fourteen months.

Ordinance No. 129, approved November 5th, 1874, creating the office of City Librarian, and prescribing his duties, &c., enacts: First, "That the City Librarian, under the supervision and direction of the City Register, shall take under his charge and keeping all the books and documents of every description, and the archives, records and papers, and the proceedings of the corporation, (except those relating to the titles of city property) now in possession of the city authorities, or which may hereafter come into their possession; and also all the ordinances, resolutions and proceedings of the City Council after each and every session thereof; and the said Librarian shall arrange and classify, so as easily to be found when necessary, all the books, documents, records, papers, ordinances and resolutions, and proceedings hereby placed and hereafter to come under his charge and keeping; and the said Librarian shall furthermore carefully collect and arrange, and safely

keep a complete series of ordinances and resolutions and proceedings of the Mayor and City Council, and all other books, papers and memorials relating to Baltimore, from its inception as a town to the present time, and shall continue the same annually."

Under Resolution No. 449, approved July 17th, 1875, the City Librarian was authorized and directed to have re-printed by the City Printer, as many of the ordinances and resolutions of the Mayor and City Council of Baltimore, passed and adopted during the years 1797 to 1822 inclusive, as may be needed to complete the series thereof in the City Library and the several departments of the City Government, and appropriating the sum of eight hundred dollars therefor. The ordinances and resolutions were re-printed in three series—1797 to 1802 inclusive, 100 copies; 1803 to 1812 inclusive, 100 copies; 1813 to 1822 inclusive, 100 copies.

The Librarian also had the ordinances and resolutions from 1823 to 1831 inclusive, re-printed in two series—1823 to 1827, and 1828 to 1831.

The Librarian has deemed it not out of place in the discharge of his duty, as directed in Resolution No. 449, to compile the Acts of the Legislature of Maryland relating to the "Boundaries, Police and Regulations of the Town and City of Baltimore, from 1729 to 1826, together with the Charter of Maryland, Declaration of Rights, &c."

In compiling these matters, the design is to bring together in one volume all the Acts of Assembly referred to as having directly or indirectly a bearing on the City of Baltimore; the same to be ready for reference by those desiring to consult them, without having to search the several years of Legislative proceedings from which they have been compiled, and thus to codify and arrange according to dates the various acts for easy reference.

Papers and records are being arranged as speedily as time can be taken for this work. It may be stated that papers and

records came into the custody of the Librarian a confused mass, as papers of 1797 not unfrequently were found among papers of fifty or sixty years later, requiring much time and close attention to their proper classification.

Many papers and records of much value have been placed in position, and when needed can be used to the city's advantage.

Ordinance No. 74, approved May 9th, 1876, providing for supplying the different departments with stationery and printed matter by contract, under the supervision of the Librarian, has proved more economical than under the preceding mode of each department supplying itself. (Ord. 138, approved October 21st, 1871).

The Committee on Ways and Means appropriated $10,000, to meet the requirements of the various Departments for the fiscal year ending October 31st, 1877. The appropriation not having been made until June, 1877, the several Departments paid their own bills for stationery and printed matter up to May, which accounts for the large surplus, $4,859 65. Had the full amount expended for stationery, &c., been drawn by this department, the estimate of $10,000, would have been nearly correct, as per following statement:

DEPARTMENTS.	Value of Stationery and Printed matter used during fiscal year.	Value of Stationery and Printed matter used during November and December, 1877.	Total for fourteen months.
City Library	$113 38	$ 7 98	$121 36
City Collector	2,194 70	129 83	2,324 53
Water Department	809 53	401 81	1,211 34
Fire Commissioners	720 62	62 25	782 87
Health Department	470 42	10	470 52
Board of Control and Review	414 81		414 81
City Comptroller	265 68	54 22	319 90
Harbor Board	259 59	9 09	268 68
City Register	198 57	24 72	223 29

DEPARTMENTS.	Value of Stationery and Printed matter used during fiscal year.	Value of Stationery and Printed matter used during November and December, 1877.	Total for fourteen months.
City Commissioner	197 90	6 50	204 40
Appeal Tax Court	189 10	16 60	205 70
Baltimore City Jail	127 88	53 56	181 44
Police and Fire Alarm Telegraph	127 36		127 36
Bayview Asylum	121 92	20 07	141 99
Mayor's Office	102 29	26 79	129 08
Commissioners for Opening Streets	53 33	50	53 83
First Brigade, Md. Nat. Gd.	36 85		36 85
Supervisors of Election	35 06	3 25	38 31
Examiner of Titles	34 37		34 37
Park Commissioners	29 50		29 50
Inspector of Buildings	28 81	53 52	82 33
Inspector of Gas Meters	28 13	4 00	32 13
Harbor Master, 5th District	22 69		22 69
" 3d "	18 57	1 25	19 82
Law Department	17 67		17 67
Harbor Master, 1st District	14 90		14 90
" 6th "	14 64		14 64
Superintendent City Hall	13 76	1 60	14 96
Harbor Master, 4th District	7 88		7 88
" 2d "	4 50		4 50
Committee Clerk, 1st Branch City Council	3 39	2 38	5 77
Examining Committee	1 03		1 03
Merchandise, represented by stock on hand	473 35		444 01
Library for Ordinances, U. S. Constitution and other books, &c	715 15	15 00	730 15
Ordinance, 1823 to 1831, inclusive.	$7,866 93	$895 02	$8,649 76

Requisitions and receipts have been obtained and filed for every article furnished, which has been the best of its kind and at moderate prices. The whole work has been reduced to a system, securing a large saving to the City. One instance may be given--the printing and stationery for the Registers of Voters for 1876, cost the City about $4,000--for 1877, the work was done under the supervision of this office at a cost of some $1,500--making a saving of $2,500.

In accordance with a Resolution of the City Council, the Librarian was directed to prepare a detailed statement of all the property owned by the City, together with its liabilities. The preparation of this work has been delayed longer than was anticipated, owing to the difficulty in obtaining the deeds for the same. All these, after much effort, have been secured and the work will soon be completed.

It may not be out of place for me to suggest that the property owned by the City be platted and its location distinctly marked. There is considerable property in the hands of the Finance Commissioners, and they should have such a plat for reference.

During the past summer, at the request of the Congressional Committee, the Librarian forwarded, with the approval of the Mayor—to Mr. Spaffard, Congressional Librarian, over one hundred volumes, uniformly bound and lettered, embracing all the Ordinances and Resolutions and Proceedings of the City Council--also the Annual Reports from 1797 to 1876, inclusive.

A similar donation was made to the Prefect of Paris, to which the City is largely indebted for monthly publications, transmitted free of charge, to our Library. The contents of several the Librarian has had translated, and find they contain very valuable statistics of municipal matters.

There was recently received into the Library, twenty-seven volumes of valuable State papers, presented by Hon. Wm. Fell Giles, His Honor the Mayor, acknowledging the receipt of them.

There is at present, under the care of the Librarian, the following schedule of printed matter, viz:

In the Library, bound, lettered and enclosed in cases, the following:

Mayor's Messages and Reports of City officers	185	vols.	
Ordinances and Resolutions	1,417	"	
City Council Journals	645	"	
City Code 1869	2	"	
City Code Supplement	115	"	
Exchange with other Cities	450	"	
Laws of Maryland and Proceedings of Legislature	76	"	
			2,890 vols.
In Document Room (upper floor) Ordinances and Resolutions	1,162	"	
City Council Journals	580	"	
Mayor's Message and Reports of City Officers	420	"	2,162 vols.
Total			5,052 "

(The books in Document Room are surplus volumes of various years).

Of the one thousand copies of the "City Hall," a considerable number have been distributed. The balance will be held subject to the order of the Mayor, as required by Resolution.

All of which is respectfully submitted

JOHN S. BROWN,

City Librarian.

ANNUAL REPORT

OF THE

Inspector of Illuminating Gas,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE

FOURTEEN MONTHS ENDING DEC. 31, 1877.

REPORT.

OFFICE OF INSPECTOR OF ILLUMINATING GAS.

Baltimore, January 3, 1878.

To the Hon. Geo. P. Kane,

Mayor of Baltimore.

SIR:

The undersigned begs leave to present in the accompanying table, a summary of the work of this office during the last fourteen months, from October 31st, 1876, the date of the last annual report, to the present time. The character of the gas supply during this period has not been subject to any great or sudden changes, compared with corresponding periods of the preceding year. There has been an increase in the illuminating power, particularly during the last half of the year. The chemical purity as shown by qualitative tests has been at all times satisfactory, and in all respects the gas has been steadily above the requirements of the ordinance. Although it has been annually discussed in the reports from this office, it may not be amiss to notice again that continually recurring question, how can one get the greatest amount of light by the consumption of a given quantity of gas. We may take for granted that gas of proper quality, supplied in proper quantity and burned in a proper manner, will give a perfectly satisfactory light.

If in a given case we do not get that light, it is manifest that its illuminating power is too low or the arrangements for burning it are in some manner defective. So long as the illuminating power of our gas is kept up to or above the standard defined by the law, the gas companies fulfill their contract, and the quality of the gas cannot be justly made a matter of complaint against them. Even if it could be shown that no ordinary arrangements will enable consumers to obtain the light they need from illuminating gas of legal standard, the fault would lie in the terms of the contract, and the only remedy would be to arrange with the companies to supply gas of a higher candle power. But if it can be shown that the gas as at present supplied can be made to give sufficient light for all reasonable purposes, then consumers have in their own hands a remedy for their complaints. It is a demonstrable truth that the amount of light to be obtained by the combustion of a given bulk of gas, is entirely dependent on the conditions under which it is burned, and those who neglect to provide the most favorable conditions cannot reasonably complain of want of light. The greatest difficulty the consumer has to contend with, because the most troublesome to remedy, is excessive pressure in the distribution of the gas. Where the service pipes in a building are too small as is often the case, a dilemma is at once presented. If the pressure is not excessive, the proper bulk of gas cannot be forced through the small pipes, and the quantity supplied to the burners is too small to give the light required. If the pressure is sufficient to force the proper quantity through the pipes, then the gas burned under such high pressure is in a condition very unfavorable for the production of light, and this is again deficient. The proper, and apparently the only remedy, for this difficulty is to replace the small pipes by others of the right size. Where the pipes are

of the proper size and the pressure on the gas is too great, this can be controlled, imperfectly it is true, but to a certain extent, by partly closing the stopcock between the meter and the street main, permitting the passage as nearly as possible, of only that quantity of gas that can be properly burned. The injurious effect of excessive pressure can also be counteracted by burners constructed for that purpose.

These are calculated to diminish the too rapid flow of the escaping gas, and thus prevent its mingling too quickly with atmostpheric air before combustion. A double burner with the lesser discharging capacity of the inner orifice, properly adjusted to the greater discharging capacity of the outer orifice, has been found to answer this purpose very well. The necessary connection between great pressure on the gas and large gas bills should be kept in mind. To obtain a certain amount of light much more gas must be consumed if delivered under high pressure, than would suffice if the pressure is less, and for all the gas thus wasted the consumer must pay.

In the choice of burners the material is only important in reference to durability. That is best which is least liable to corrosion, as retaining the original form of the orifice unaltered for the longest time. Hence steatite or porcelain tips are to be preferred to brass or iron. The vast difference between good and bad burners is not generally understood ; the good generally give from 25 to 40 per cent. more light than the bad, and in extreme cases, the difference may be 70 or 80 per cent. The loss of light by the use of shades should also be kept in mind. With clear plain glass shades or globes, the loss of light ranges from 15 to 20 per cent., and with ground glass and figured shades, the loss may reach 50 or even 90 per cent. The irregular currents of air established by the ordinary globe surrounding a gas jet, also act very injuriously, keeping the flame con-

stantly flickering, and taxing the eye more painfully than less light from a steady source.

In concluding this report I would beg leave to suggest the expediency of providing this office with certain indispensable articles of apparatus. The arrangements now in use were obtained in 1861, when the ordinance establishing the Inspection of Gas was passed, and were the best then known, but they have been superseded by improved and vastly better arrangements, better fitted for the work. As the new instruments are now in use in other cities in this country and in Europe, no correct comparisons can be made between the gas supply of those cities and our own, until we adopt the same instruments. The apparatus of the office having been provided when there was only one gas company in existence, and only one article to be examined, is no longer sufficient for the work to be done. In 1871 a second company, the "People's," went into operation and we are shortly to have a third, the Mutual. Of these three it is only the gas from the Baltimore Co's works that is delivered in the office of the gas inspector in the City Hall, and consequently it is this alone that can be examined with the apparatus of the office. The examination of the gas of the People's Co., has to be made in a room provided by the Inspector and with his own apparatus. Whenever the gas from the Mutual Co. is ready for consumers, the Inspector will be obliged to use the same room and his own apparatus for that work also. If it be "the duty of every municipal corporation to know that the gas distributed through the streets under its charge shall be of good quality and sold at a price for public and private consumption which shall be fair and just," the corporation should supply the necessary facilities for the work.

A recent report on this subject in a neighboring city where the same want has been felt, says: "The necessity for having

apparatus for testing the gas supplied by the several gas companies has been often seen in consequence of frequent criticisms by the public press and complaints from the people in regard to the quality of the gas. Moreover, our contracts require that the gas supplied to the public lamps shall be of an illuminating power not less than 16 candles, when tested by a Photometer not less than a mile from the place of manufacture, and as regards its purity shall be free within limits from all ingredients injurious to health or capable of deteriorating its illuminating power. In the absence however of proper apparatus, the city authorities have labored under the disadvantage of having no means of ascertaining the quality of the gas or how free it might be from noxious compounds." In accordance with this the report goes on to state that, "one Photometer room has been provided and is in daily use, furnished with the most improved arrangements for measuring illuminating power and for determining the kind and amount of any impurities present." And that another room with duplicate apparatus, in a distant part of the city, for examining the gas from other gas works, will soon be completed. With the same means the same information which would seem to be just as necessary here as elsewhere, can be as readily obtained. The facilities most needed in this office are those necessary for determining the exact quantity of any impurity in the gas. This work has been done in years past by the use of instruments, the private property of the inspector. These from long continued use have become unserviceable and need to be renewed. Until this can be done the Inspector can continue to note and report weekly the illuminating power of the gas supply and the presence or absence of any impurities, without reference to quantity. Respectfully, &c.,

WILLIAM E. A. AIKEN,

Inspector of Illuminating Gas.

TABLE

Showing the average illuminating power of the gas supply of the City of Baltimore, from October 31, 1876, *to January* 1, 1878, *in candles.*

1876.	Average of the gas from the People's Co.	Average of the gas from the Baltimore Co.
November	14.25	14.50
December	14.00	14.20
Two Months	14.12	14.35
1877.		
January	13.50	13.50
February	13.50	13.56
March	14.00	14.00
1st Quarter	13.66	13.68
April	14.50	14.60
May	15.00	15.00
June	15.00	15.00
2d Quarter	14.83	14.86
July	15.00	15.00
August	15.00	15.00
September	14.70	14.50
3d Quarter	14.90	14.83
October	14.87	15.00
November	15.00	15.00
December	15.00	15.00
4th Quarter	14.95	15.00
For the year	14.58	14.59

ANNUAL REPORT

OF THE

BOARD OF TRUSTEES

OF THE

McDonogh Educational Fund

AND INSTITUTE,

TO THE

Mayor and City Council of Baltimore,

AND A

CATALOGUE OF THE McDONOGH FARM SCHOOL.

1878.

TRUSTEES AND OFFICERS

OF THE

McDonogh Educational Fund and Institute,

1877-78.

	OFFICE.	RESIDENCE.
Wm. A. Stewart	44 N. Charles Street	133 Lanvale Street.
H. Clay Dallam	51½ St. Paul Street	269 N. Eutaw Street.
Sam'l H. Tagart	43 Lexington Street	84 W. Madison Street.
David L. Bartlett	24 Light Street	57 Hollins Street.
German H. Hunt	7 German St., near South	192 McCulloh Street.
Chas. H. Mercer	72 Exchange Place	328 E. Baltimore Street.
Robt. T. Baldwin	Nat. Mechanics' Bank	335 Madison Avenue.

President.

SAMUEL H. TAGART.

Vice-President.

WILLIAM A. STEWART.

Secretary and Agent.

H. CLAY DALLAM.

Finance Committee.

SAMUEL H. TAGART,
DAVID L. BARTLETT,
ROBERT T. BALDWIN.

REPORT.

OFFICE OF BOARD OF TRUSTEES OF MCDONOGH
EDUCATIONAL FUND AND INSTITUTE,

BALTIMORE, *January 15th*, 1878.

To the Honorable the Mayor and
City Council of Baltimore:

GENTLEMEN:

The Trustees of the McDonogh Educational Fund and Institute, respectfully submit their report of the condition of the School and the Fund for the past year. At the same time they enclose the annual report of Col. Allan, which has recently been received by them.

The report of the Principal (Col. Allan,) is so very clear and comprehensive as to leave but little for us to add of either interest or information as to the operations of the School. The suggestions made by him as to the needs of the Farm have been long felt by the Board, to whom it is a source of regret that they cannot be supplied at the present time. The policy of the Board has ever been to make the wants of the Farm subordinate to the demands of the School, and they will not deviate from it. You will herewith find the report of the "Finance Committee," by reference to

which you will perceive that the income for the year eighteen hundred and seventy-seven, was forty-five thousand two hundred and fifty-seven dollars and ninety-two cents. The expenditures during the year amounted to twenty-one thousand four hundred and ninety-three dollars and seventy-two cents, showing the income in excess of expenditures to be twenty-three thousand seven hundred and sixty-four dollars and twenty cents. In our last report, we stated that we had appropriated the unexpended balance of that year, amounting to five thousand eight hundred and sixty-four dollars and eight cents, to a fund to be thereafter denominated as "The Building Fund," and applied to the erection of the new buildings for the School. Out of the balance of this year, the Finance Committee have set aside for said fund the sum of twenty-one thousand one hundred and thirty-five dollars and ninety-two cents, which now amounts to twenty-seven thousand dollars, and which has been invested by the Committee in the notes of our own city. By a continuation of the same economy which has hitherto been pursued by the Board, this Fund will not only remain intact, but continue to increase until sufficient means are realized to meet the requirements of the Building Committee.

The prospect of the erection of buildings suitable for such an Institution as is contemplated to make the McDonogh School at no distant day, is a source of as much gratification to the Board as to the community. The determination of the Trustees that all other demands upon the fund must yield to the prosecution of this object, is evidenced by their failure to erect other and necessary buildings, absolutely required for the wants of the Farm. The Trustees do not, however, consider that the delay in the erection of the buildings and the increase of numbers at the School, caused by the want of the

necessary means up to the present time, has operated disadvantageously to the School. As in the beginning, our School was almost universally considered an experiment, (and by many a very doubtful one,) may it not well be a mooted question now whether we have not gained much more in experience than we have lost by delay. The School was inaugurated on the 23d day of November, 1873, and so far from its usefulness and the benefits to be derived from it being appreciated by the public, it required no little effort to obtain a sufficient number of boys to make a respectable commencement. Controlled by the specific directions contained in the will of Mr. McDonogh, as to the class and condition of his beneficiaries, no discretion was left in their selection with the Trustees, nor has any been exercised by them. Fatherless children if not wholly orphans, with the further qualification of the "poorest of the poor," constitutes the condition prescribed by him. This designation very naturally was in the outset an obstacle to our success, for bitter as are the pangs of adversity, far bitterer is the avowal and exposure. The mother or friend of the boy who is engaged in the struggle to provide food and clothing for him, has not the time to devote to his education or training. To mould and shape such a boy, so far as to enable him to appreciate the importance of an education, and to exact from him an observance of the rules and discipline required by a proper system, is no easy task. By the exercise of the tenderest care and greatest forbearance upon the part of the Faculty, combined with wholesome and well adapted regulations, these difficulties have been surmounted. The conduct and example of those boys who preceded, produced a salutary influence upon those who were admitted later, until now there have ceased to be those violations of rules and discipline which formerly

existed. We may cite as evidence of the probable change which has been produced in the tone of the boys, the fact that since the opening of the present session in June last, not one boy has left the School. To effect such results, is the work of time, and for their accomplishment, you as well as the Board are indebted to the zeal and energy of Col. Allan and his able associates.

Perfection in the management of institutions of learning has never been attained by rapid strides. "To make haste slowly" has been the maxim of those who have achieved the best results. From what we have said it is apparent that until the system adopted by the Faculty for the government of the School was fully matured, it could have no more lasted than could a ponderous superstructure upon a weak and unstable foundation. From an inspection of the Catalogue, you will see that those boys who will finish their course the present year, have advanced high in the various branches of our English education. To this has been added the study of the German language, which is a most valuable acquisition. As they will most probably seek employment in their own city, it is of infinite importance that they possess some knowledge of that language spoken by so large a portion of our population, and who constitute so active, intelligent, and prosperous a class.

The Farm is gradually improving, and whilst it has ceased to be a burthen on the fund, it contributes no revenue to it. It is well conducted under the management of Mr. George B. Jobson, who has many difficulties to contend with in the want of necessary outbuildings to protect the crops. These wants have not been supplied for the reasons before stated. We have again to report that we have obtained no revenue from our property in the State of Louisiana, but on the con-

trary are bearing the burthen of taxation upon it. The Board had hoped by this time to have realized considerable revenue from their certificates of location upon the public lands, but from the latest information derived from our agent, the locations have not yet been made.

The report of the Principal has informed you that almost uninterrupted good health prevails at the School. For much of this immunity from sickness, the boys are indebted to the watchful care of Mrs. Young, the Matron, who, whilst she commands their respect, she also, by her kindness and devotion, wins their willing obedience.

S. H. TAGART,

President of Board of Trustees of McDonogh Educational Fund and Institute.

Test: H. CLAY DALLAM,

Secretary and Agent to Board.

REPORT

OF THE

Finance Committee.

REPORT.

BALTIMORE, *January 1st*, 1878.

To the Trustees of the McDonogh
Educational Fund and Institute.

GENTLEMEN:

The following is a statement of Receipts and Disbursements from January 1st, to December 31st, 1877:

RECEIPTS.

Cash on hand as shown by last report		$ 5,864 08
For interest on City Stocks		36,762 75
" " " Real Estate Mortgage		1,130 00
" " " Mayor and City Council Notes		5,882 92
" Temporary Loans		11,662 31
" Sales reducing value of Live Stock to $4,600		400 00
		$61,702 06

DISBURSEMENTS.

For Temporary Loans paid	$6,162 31	
" Interest on ditto	77 66	
" Taxes on New Orleans property	232 23	
" Insurance on property—temporary	16 32	
Amounts carried forward	$6,488 52	$61,702 06

Amounts brought forward	$6,488 52	$61,702 06
For Advertisements—Decoration Day Expenses, &c	83 74	
" Portrait of John McDonogh	65 00	
" Miscellaneous Expenses	139 22	
" Stationery and Stamps	92 33	
" Additions to Furniture	71 71	
" " to Farm Implements .. .	354 82	
" " to Library and School Apparatus.....	683 42	
" " to Garden and Orchard, and fencing latter....	372 05	
" Architect's Plans for New Buildings and opening quarry for same	580 00	
" New Boiler at Pump house	534 90	
" Improvements and Repairs to present Buildings	1,318 39	
" Promissory Note, Mayor and City Council	15,000 00	
" Promissory Note, Mayor and City Council.	12.000 00	
" Trust Expenses	2,462 00	
" Expenses of Tuition... $3,550 21		
" Expenses of House and lodging 2,279 34		
" Expenses of Subsistence 8,299 05		
" Clothing of Pupils..... 2,736 08		
" Medical attendance..... 210 77		
———	17,075 45	
Balance of cash on hand Jan. 1, 1878	4,350 51	
———		$61,702 06

The investments are as follows:

SIX PER CENT. STOCK OF THE CITY OF BALTIMORE.

"Defence Loan."

Interest payable semi-annually, March 1st, and September 1st	$210,000 00

"Exempt Loan."

Interest payable semi-annually, March 1st and September 1st	70,000 00

"Funding Loan."

Interest payable quarterly, January 1st, April 1st, July 1st, October 1st	85,000 00

"Bills Receivable."

Promissory Note—Mayor and City Council of Baltimore, due February 8, '78	279,000 00
Promissory Note—Mayor and City Council of Baltimore, due February 11, '78	12,000 00
Promissory Note—Mayor and City Council of Baltimore, due April 20, '78	15,000 00
	$671,000 00

MORTGAGE ON REAL ESTATE, DUE MAY 1ST, 1879.

Interest payable semi-annually, May 1st and November 1st	37,333 33
Amount interest due on above Mortgage at date of this report, but since paid	1,120 00
Amount carried forward	$38,453 33

Amount brought forward		$38,453 33
Collector of State Taxes—Amount withheld in error		362 25
Productive Investments		$709,815 58
To which add :		
Real Estate—Foxleigh farm and improvements		125,000 00
Additional constructions and improvements		2,463 29
To which add :		
Payments on account of—		
Real Estate in New Orleans	$914 81	
Land Warrants	149 75	
		1,064 56
Personal, viz :		
Live stock on farm	$4,600 00	
Household furniture and material	3,500 00	
Library, school furniture and instruments	1,000 00	
Farming implements	1,500 00	
		10,600 00
Amount cash in bank and on hand		4,350 51
		$853,293 94
From which deduct—		
Amount of loan from N. Mechanics Bank		5,500 00
Present value of the Trust		$847,793 94

In addition to the Real Estate, Stocks, &c., already enumerated, the Trust owns the following properties, viz:

1st. Certificates of Location to ..... 26,040 Acres of public lands. These were issued by the General Land Office of the United States under and by virtue of the Acts of Congress of 22d June, 1860, 2d of March, 1867, and 10th June, 1872, and the City of Baltimore as devisee of John McDonogh became entitled to the same by a decree of the Supreme Court of the United States rendered in favor of the cities of New Orleans and Baltimore against the United States, which decree bears date 9th January, 1874.

The Trustees are entitled to locate their scrip and appropriate to the extent of their claim any of the public lands of the United States to which no adverse right exists, except in the States of Alabama, Mississippi, Louisiana, Arkansas and Florida.

The Trustees have determined to locate rather than sell, believing that by a careful and judicious selection of lands, at no very distant day this property will prove a valuable addition to the Trust.

2d. A tract of about ..... 3,000 Acres of heavily timbered land lying about 96 miles north of New Orleans on the west bank of the Mississippi, and about two miles from the river. It is situated in the Parish of Iberville, about three or four

miles from Bayou Goula, which is the seat of the Parish. There are no improvements of any considerable value on the tract. Before the war this property was esteemed very valuable, and the Board of Trustees which preceded the present Board, made a contract for the sale of 1,300 acres of the tract at $73,000. This was the year before the war began, and during the war the purchaser made default, and Baltimore had to take the property back.

3d. A tract of..... 10,000 Acres
about fifty-five miles north of New Orleans, on the eastern bank of the Mississippi, situated in the Parish of St. James.

In 1859 the joint Commissioners, who made the partition between New Orleans and Baltimore, appraised this property at $75,000, and it was charged to Baltimore at that appraisement.

In the report of the former agents (A. D. 1860,) they however, speak of this tract "as low swamp land probably of no great value."

At present it is believed to be wholly unsaleable, if not valueless.

4th. A one-half undivided interest with New Orleans to 177 Arpents of land lying in the rear of the City of New Orleans, known as the "Livandais Tract." The partition of this tract has never been made so as to 88½ Arpents.

definitely ascertain the respective rights of the parties in and to the same, and the suit is still pending in regard to it. It is alleged New Orleans holds possession of a portion of this which rightfully belongs to Baltimore.

5th. A small tract in the rear of Versailles, Parish of St. Bernard and Orleans, bought in by Baltimore under a judgment in its favor, at $280.00

6th. A tract of..... 640 Acres
in the Parish of Livingston, La. It was the property of Mr. St. Martin, a debtor to Baltimore, and was sold under execution and bought in by Baltimore for $640.00.

7th. 185 squares of ground in the rear of Versailles, Parish of St. Bernard, sold in 1859 to W. Dunbar for $2,000.00, but not paid for.

8th. Twenty-four certain lots of ground situate 24 Lots
in the City of New Orleans in square known as Number 370, bounded by Toulouse, White, St. Peter and Duprez streets, said property having been bought in by Baltimore at a tax sale, 5th October, A. D. 1875, for $133.85, it having been sold for payment of taxes due by J. O. Theard, a debtor to Baltimore.

The books of account containing the various items embraced in the foregoing statements, were duly balanced on 31st ultimo, and the Committee now presents for your examination a Balance Sheet of the Trust Ledger, showing the investments of the Trust Funds on January 1st, 1878.

BALANCE SHEET

Dr.		*Cr.*	
City Stocks	$365,000 00	McDonogh Trust Fund	$820,793 94
Bills receivable— City's Notes	306,000 00	Nat'l Mechanics' Bank	5,500 00
Real Estate, Mortgage	37,333 33	Building Fund	27,000 00
Real Estate, Foxleigh Farm	125,000 00		
Real Estate, New Orleans	914 81		
Real Estate, Land Warrants	149 75		
Real Estate, Interest on Mortgage	1,120 00		
Real Estate, Construction	2,463 29		
Collector of State Taxes	362 25		
Live Stock on Farm	4,600 00		
Household Furniture	3,500 00		
Library, &c.	1,000 00		
Farming Implements	1,500 00		
Cash	4,350 51		
	$853,293 94		$853,293 94

Increase during the year..... .... $23,764 20

Shown thus:

Bought City's Notes	$27,000	00
Paid on N. O. property.....	232	23
Paid on Construction account	2,463	29
State Taxes--to be refunded...	362	25
Mortgage interest--since paid.	1,120	00
	$31,177	77

Less:

Reduced value of live stock.....	$ 400	00
Due National Mechanics' Bank.....	5,500	00
Cash bal. Jan., 1877... .....$5,864.08		
Cash bal. Jan., 1878 ..... 4,350.51		
Difference	1,513	57
	7,413	57

Net increase $23,764 20

Appropriated thus:

To credit of Building Fund...	$21,135	92
To credit of Trust Fund.....	2,628	28
	$23,764	20

Respectfully submitted,

S. H. TAGART,

D. L. BARTLETT,

ROBERT T. BALDWIN,

Finance Committee.

Correct: JAMES SCOTT, *Bookkeeper.*

STATE OF MARYLAND, *City of Baltimore, set:*

I hereby certify that on this 22d day of January, A. D., 1878, personally appeared before me, a Justice of the Peace, in and for the city and State aforesaid, Samuel H. Tagart, President of the Board of Trustees of the McDonogh Educational Fund and Institute; H. Clay Dallam, the Agent and Secretary thereof, and Robert T. Baldwin, one of the Trustees thereof, and did each make oath, in due form of law, that the matters stated in the foregoing Reports are true to the best of their knowledge and belief.

Sworn before GEO. McCAFFRAY,

Justice of the Peace.

Historical Sketch.

HISTORICAL SKETCH.

The McDonogh School owes its existence to the munificence of John McDonogh of New Orleans.

John McDonogh was born near Baltimore December 29, 1779. His parents were poor, but seem to have given him the best education within their reach, and were especially careful of his moral and religious training. He always spoke of them with the utmost gratitude and affection.

He was trained to mercantile pursuits, and while quite a young man removed, about 1803, to New Orleans. Here, during a long and successful business career he steadily amassed wealth. Though at first indulging in social intercourse and living in a manner commensurate with his means, he gradually withdrew from society, and became more and more economical in his habits until at last his whole nature became absorbed in the care and increase of his property. Exacting in his business relations, haughty and reserved with his fellow men, during the latter part of his life he lived in the plainest manner, surrounded only by the faithful slaves for whose welfare he showed the greatest solicitude, and for whose comfort he provided liberally. All his energies were bent to the enlargement of his estate.

He died October 28, 1850. On the next day his will, made twelve years before, the provisions of which had been

kept strictly secret, was admitted to probate. It then appeared that virtually his entire estate, amounting to $1,100,000 was devoted to charitable purposes. After freeing his slaves and providing means for their removal to Liberia and establishment there the mass of his property was left to the Cities of New Orleans and Baltimore, to be applied to the education of poor boys. For the greater part of his life he seems to have had this end in view. His mind had dwelt on it so long and persistently that all other objects seemed insignificant. He came to look upon himself as a steward of Divine Providence, whose duty it was to gather together all the wealth he could, to be devoted to the moral and intellectual education of the poor. As his imagination dwelt upon this noble object, it grew and expanded before him until it far transcended all other wordly aims. It seemed to justify the most unceasing toil, the most constant self-denial. It hallowed to him care, labor, privation, solitude. The endearments of kindred and of friendship, the sympathy of his fellows, became matters of no moment. All was made to bend to the one object of laying the foundations of a charity which was to bless large numbers of his countrymen for many generations to come. In his enthusiasm he greatly exaggerated his wealth and what it could accomplish, and still more his power to direct and control its increase after death. He directed that all his property and its increase for a time should be invested in real estate, and looked forward to the period when the income from it would be millions, and the beneficiaries would be numbered by tens of thousands.

Many of the provisions of the will, it was impossible to carry out; others operated in a way very different from that designed, and entailed heavy charges on the estate. Much

tedious and expensive litigation grew out of the condition of the property, and out of the various successive attempts made to set aside the will, or to establish the validity of codicils to it. The last important suit of the latter kind, (that of Moses Fox, involving over $300,000) was not finally decided until 1872.

Meanwhile the Cities of New Orleans and Baltimore accepted the bequest made to them and made preparation for the administration of the property and the execution of the designs of the donor. It was found necessary and expedient to divide the estate, and the City of Baltimore proceeded to sell the portion falling to her, in order that the funds might be invested in some more manageable and profitable shape than in that of real estate so scattered, and located at such a distance from home. While the estate was in process of liquidation, the war put a stop to all progress and materially lessened the value of the real property yet unsold. After the war the agents of Baltimore City continued their labors. In 1868 the present Board was constituted. The fund then amounted to $500 000. It increased in their hands, and when, in 1872, the suit of Moses Fox was decided in favor of the City, they held a fund amounting to $650,000, invested in Maryland and Baltimore City Stocks, besides a considerable amount of real estate in Louisiana, then—and yet—unsold.

The McDonogh School was established in pursuance of one of the provisions of Mr. McDonogh's will, directing the establishment of a Farm School near the City of Baltimore, for the benefit of the poor boys, first of Baltimore, then of the towns and villages of the State of Maryland, and then of the great maritime cities of the United States. Mr. McDonogh contemplated an endowment of $3,000,000 for the

organization of this Institution, (to be largely increased with the advancing values of the real estate investments.) So far the fund realized and its accumulations, including the property bought for the use of the School, amounts to about $800,000. The object aimed at by Mr. McDonogh was very comprehensive. It was nothing less than the "rescuing from ignorance and idleness, and of a consequence, from vice and ignominy, millions upon millions of the destitute youths of the large cities of the United States, and the bringing them up in knowledge and virtue to industry and labor."

The Trustees, in 1872, finding themselves for the first time, free from serious litigation and in possession of some $650,000, purchased the present site for the location of the School. The farm contains 835 acres, well watered and wooded, lying on the Western Maryland Railroad, twelve miles from Baltimore. It is in a perfectly healthy region, removed from the corrupting temptations of towns or large villages and yet sufficiently convenient to the city.

The great advance that has taken place in regard to educational facilities since the death of Mr. McDonogh, as well as the diminished amount of the fund, presented matters of grave consideration to the Trustees in determining how best to carry out the intentions of this noble philanthropist.

Their views as to the field left for the School to occupy and the work it should attempt to do, are indicated in a report adopted in May, 1872, from which the following extracts are taken:

"The city ordinance from which this Board derives its powers, imposes the duty of 'establishing a School Farm, as directed under the will of John McDonogh.' These directions state clearly the general objects in view, and the gen-

eral character of the instrumentality to be employed, and must be regarded as controlling our action. In referring, however, to details, the directions are suggestive rather than mandatory. It is a fortunate circumstance that this latitude exists; and that in now seeking to carry out this great educational charity in the most practical and feasible mode, a discretion can be exercised that shall have regard to changes which have taken place in this community during the twenty-two years elapsed since the death of John McDonogh.

"During that period, a system of Public Free Schools in the City of Baltimore has been matured and brought to a state of great perfection, so that at the present day little remains unaccomplished in that respect.

"The House of Refuge, founded seventeen years ago, as an institution of a reformatory character, is now caring for about three hundred and eighty (380) boys of the class known as juvenile delinquents. It is able to meet all the requirements of this community as far as regards that particular class of boys.

"The Manual Labor School receives indigent orphan and half orphan boys, assuming legal charge during minority under articles of apprenticeship agreed to by parent or guardian. Its resources are stated as sufficient to maintain 25 per cent. more boys than have ever been its inmates. This is the case, in spite of the fact that constant efforts are made to increase the number: agents being employed to visit poor families for the purpose of influencing them to commit their children to the care of the school. We are constrained, consequently, to regard this ground as pre-occupied. The Manual Labor School appears fully to fill its own special sphere of usefulness.

"The Saint Mary's Industrial School, the Boy's Home,

the Children's Aid Society and several Orphan Asylums have been founded within the past few years, and are devoting themselves, on an ever expanding scale, to the care of poor boys, or of boys without proper guardianship and homes.

"In seeking a field of usefulness for the McDonogh Institute commensurate with its resources, it is right to bear in mind the above changes, effected since Mr. McDonogh's time, in the condition of the class he desired to benefit."

The Board then adopted the suggestions that the pupils of the School should be "*poor boys of good character, of respectable associations in life, residents of the City of Baltimore,*" and that "they be admitted between the ages of ten and fourteen years." They were to be retained until sixteen years old. This regulation was subsequently modified by the creation of the Prize Scholarships described in the Catalogue. The Catalogue sets forth the course of instruction that has been pursued.

It was decided not to put up buildings at once, but to repair the large dwelling on the farm so as to adapt it to the accommodation of a small number of boys and to begin the work of the School without delay, leaving to experience to indicate the arrangement and character of the buildings needed, as well as the other requisites for putting the Institution upon its permanent futting.

The Principal and other officers having been appointed, the School was opened November 21st, 1873, by the admission of 21 pupils. This number was gradually increased, as the accommodations were made ready, to 50, by February 1st, 1874. Want of room has prevented any further increase of numbers since that date. Applications have steadily increased from the beginning and there are at present a large number on the list. As soon as the buildings and apparatus can be provided the School will be filled to its capacity.

THE

Report of the Principal,

AND THE

CATALOGUE

OF THE

McDonogh School,

1876–77.

Officers of the School.

Principal.

WILLIAM ALLAN, M. A.

Instructors.

D. C. LYLE, M. A.
JULIUS KRUTTSCHNITT, C. E.
S. T. MORELAND, M. A., C. E.
A. C. H. RUSSELL, (Music.)

Matron.

Mrs. JOSEPHA YOUNG.

Post Office.

OWINGS' MILLS, Maryland.

REPORT.

McDonogh School, *January 1st*, 1878.

S. H. Tagart, Esq.,

President of the Board of Trustees.

Sir: Since the date of my last report, (July, 1876) the condition of the School has been good and its progress satisfactory. The catalogue herewith submitted shows the additions which have been made to the course of instruction, in order to provide for the needs of the older classes. In another year we shall have passed over the entire course which is within our reach, for at the expiration of that time, the boys who entered the School at its organization, and who constitute the Senior Class, will have completed their term of residence.

The instruction in Music during the session of 1876-7, continued to be under the charge of Mr. Russell, and was the same in character and amount as during the preceding years. On the 1st of last October, Mr. Russell left to attend medical lectures at Charlottesville, since which time the boys have practised their Music under Mr. W. I. Jones, one of our former students.

The School is opened daily with a chapel service, consisting of singing, reading the Bible, and prayer, and is closed

with a hymn or doxology. On Sunday, the boys attend Divine Service at some one of the neighboring churches or at the School. During the past year, thanks to the kindness of the Rev. Mr. Randolph and others, services were held frequently at the School. The scholars are divided into four Bible classes, which meet on every Sunday night. As stated in my last report, the want of a room suitable for public religious services is felt to be a great inconvenience. Regular services at the School would not merely be more convenient to the boys, but would afford to many others connected with the Institution privileges which are now out of reach

The enlargement of the School now waits upon the erection and equipment of the permanent buildings. Under the cautious and prudent policy of the Trustees, the means are being gradually accumulated for this purpose, and the steps taken to mature plans and put them into execution.

Though experience has lessened some of the difficulties felt at first in the matter of appointments, this subject is one of those requiring the most careful consideration of the Board. It can not be too distinctly kept in view, that neither this nor any other institution with a definite aim and purpose, is adapted to boys taken indiscriminately. The same objects that lay hold of the best activities of one boy, will be without influence on another; the same discipline that makes a man of one, will fail entirely in the case of another. We aim at the creation of a good school, which shall possess every advantage within reach of our means, for the instruction of boys in the subjects embraced in our course. We desire to spare no effort to render the Institution worthy of the benevolent founder, and to constitute it a valuable contributor to the education of the rising generation. But it is indispensable to this end, that only boys worth the care and

expense bestowed, should be admitted to its privileges. It does not necessarily follow that because a boy is destitute, it would be wise to place him in the School. It might even be an unkindness to him. If he has not character and ambition enough to use his opportunities so as the better to equip himself for after life, his stay here would only result in shielding him awhile from the struggle before him, without properly preparing him to meet it when obliged to do so. Better, in many such cases, that the boy should enter at once upon some trade or business, where he may at least acquire the ability to earn his bread.

I would renew the suggestion contained in my last report, that probably such an arrangement could be made with the authorities of the city schools, as would facilitate the selection of scholars and be mutually advantageous. To this I would add the suggestion, derived from the experience of others under circumstances similar to our own, that the appointments be made at first for a limited period, say for six or twelve months, and that at the end of this period of trial, permanent appointments be conferred on those only who give reasonable promise of improving under our system.

The further development of a system of work should, I think, be in the mechanical direction. I have heretofore suggested to the Board the need of facilities for giving many of our boys some practice in the use of tools, and such elementary training as would render their entrance on mechanical pursuits easier and their progress in them more rapid. The system recently adopted by the Massachusetts Institute of Technology, from the Russian government schools, seems to offer special advantages for this purpose, provided we find it necessary to establish shops of our own. The pressure of other needs may prevent the Board for a time from doing

anything in this direction, but meanwhile it is a matter for careful investigation.

The farm is gradually improving. Some years must elapse before it can be brought to a highly productive state, but the effects of keeping a large amount of stock, and of feeding the products of the farm for the most part on it, are beginning to be seen. It is hoped that it will soon become a very valuable contributor to the support of the School. The farm is poorly supplied with the necessary buildings for economical farming. With no barn, without granaries or barracks, and with no proper provision even for the storing of implements, the farmer has difficulties to contend with which greatly hinder his progress, and which, it is earnestly desired, may be speedily removed.

The garden supplies the wants of the School in its line. An extensive orchard has been planted to ensure an abundance of fruit in the future. Considerable additions are being made to this as well as to the plantings of small fruits, grapes, &c., during the present winter, from stock grown on the place.

During the past year we have been blessed, by a kind Providence, with the same exemption from serious sickness and accidents that has heretofore accompanied us. The general deportment of the School has been good. The improvement in tone and *esprit* has been marked. The instruction has been more regular, systematic and successful than ever before. For these results we are most largely indebted to the ability, earnest zeal and industry of my associates in the control of the School, and of Mrs. Young, who is at the head of the household. Much credit is due to the boys, who have, as a mass, worked with constant and praiseworthy industry.

With gratitude to Divine Providence for his mercies and blessings in the past, we earnestly pray for a continuance of them in the future.

Respectfully submitted,

W. ALLAN, *Principal.*

CATALOGUE.

CATALOGUE.

Admission of Scholars.

The following paragraphs, taken from the report of a committee appointed by the Board of Trustees to prepare a general plan for the organization of the School, set forth the rule of action that has guided the Board in making the appointments of scholars.

"It is suggested that pupils be admitted between the ages of ten and fourteen.

"The description of boys proposed to be taken may be defined as poor boys, of good character, of respectable associations in life, residents of the City of Baltimore.

"By 'poor' are meant those who are without adequate means for their maintenance, or who, in consequence of their indigent condition, are withdrawn from the public schools before acquiring a sufficient degree of education.

"By 'respectable associations in life,' it is intended to designate those whose parents or guardians may be expected to duly appreciate the advantages of education and of moral and physical training; to commit in good faith their children to the Institution for so long a period as the welfare of the children may require, and from whom unreasonable and capricious interference may not be anticipated."

Number of Scholars.

At the close of the Session of 1875–76, 50 boys were present, and 25 have been appointed since. Of these 75 boys, 10 were honorably discharged because they had reached the age of 16 years; 7 were withdrawn, 6 ran off, and 2 were dismissed. There were thus 50 boys present during the year. Four of these, however, left the School a few days before the end of the Session, and are therefore not graded. The grade of the others is given below.

Register of Scholars.

The "Standing" is the average mark for the whole session of ten months, and is estimated with reference to 100 *as the maximum.*

FIRST CLASS.

GRADE.	NAMES.	STANDING.
1	GANTT, HARRY LAURENCE	83.89
2	JOHNSON, JOHN	75.09

SECOND CLASS.

GRADE.	NAMES.	STANDING.
1	EDWARDS, AMERICUS	80.15
2	SMITH, RUSH	79.72
3	JONES, WILLIAM IRVING	73.05
4	BOND, GEORGE LEDNUM	Not Graded.

THIRD CLASS.

GRADE.	NAMES.	STANDING.
1	YOUNG, CHARLES	79.94
2	POLLITT, FRANK ALEXANDER	77.09
3	NICOLS, JEREMIAH DORSEY	75.67
4	BIELER, ALPHONSOS HENRY	75.42
5	DAWSON, CHARLES FRANCIS	Not Graded.

FOURTH CLASS.

GRADE.	NAMES.	STANDING.
1	TRAYLOR, JAMES GEDDY	84.16
2	DEWITT, ROBERT E. LEE	82.42
3	BROOKS, JOSEPH DIXON	79.39
4	FARDWELL, HARRY RINGGOLD	73.75
5	POET, HARRY BENSON	72.90
6	RUSSELL, JOHN WILLIAM	70.57
7	DUNN, JAMES WILLIAM	69.59
8	GLASCOCK, EUSTACE STRAUGHN	67.56
9	NETRE, EDWARD	66.45
10	GARRETT, FRANK LEE	63.30
11	ADAMS, WALTER SCOTT	59.11

FIFTH CLASS.

GRADE.	NAMES.	STANDING.
1	SUMWALT, CHARLES	79.09
2	CRANE, ARTHUR BATHURST	76.11
3	ROGERS, GRAFTON LLOYD	75.73
4	FAIRBANK, WILLIAM PRESCOTT	72.09

FIFTH CLASS—Concluded.

GRADE.	NAMES.	STANDING.
5	Betts, William Bailie	71.71
6	Lindsley, William Lawson	71.35
7	Bremer, Harry Cooper	70.56
8	Gibbons, Francis Marion	70.50
9	Nevins, William Wilberforce	68.22
10	Riach, William	67.97
11	Brundige, Edward Parish	63.53
12	Wilson, William Hiland	55.30
13	Morris, John Edward	54.34
14	Gilmyer, William	Not Graded.
15	Kolb, William Albert	" "

SIXTH CLASS.

GRADE.	NAMES.	STANDING.
1	Haynes, Austin Baldwin	84.74
2	Atwood, Albert Hammond	82.92
3	Riley, William Matthew	78.22
4	Bourne, Thomas	77.97
5	Marriott, James Curley	73.32
6	Richards, Arthur Orlando	71.85
7	Wilkinson, Allen Byron	70.85
8	Fales, Charles Eshbaugh	70.77
9	Van Hollen, George Henry	69.07
10	Canby, Harry Lee	54.77
11	Griffith, Alfred	53.06
12	Lusby, Louis Edward	52.45
13	Williams, George Franklin	50.75

Prizes.

A Certificate of Distinction is awarded to each boy whose mark on the examination and whose final standing in his class are each 80 per cent. or more in any one of the following studies: Mathematics, Physics, Chemistry, Natural History, Botany, Logic, History, Geography, English, German, Book-keeping, Music: or in any two of the following: Spelling, Reading, Writing, Declamation, Drawing, Oral Arithmetic One certificate is given for each study of the first group, and one for each two studies of the second group, in which the required grade is attained.

A Certificate of Special Distinction is given to each boy who obtains three or more Certificates of Distinction, and whose grade is not below 60 per cent. in any one of his studies.

Two Special Prizes were given for Declamation at the end of the session of 1876–7, the award being made by the Educational Committee of the Board of Trustees.

Certificates of Distinction

Were awarded, in accordance with the above scheme, to a respectable proportion of boys, and conferred by the Principal at the close of the examinations in January and in May.

Certificates of Special Distinction

Were won, at the examination in January, by the following boys, who passed satisfactorily all their examinations, and

made distinguished attainments in the required number of studies:

First Class.—H. L. Gantt.

Second Class.—R. Smith.

Third Class.—C. F. Dawson, C. Young.

Fourth Class.—J. D. Brooks, R. E. L. DeWitt, J. G. Traylor.

Sixth Class.—A. H. Atwood, A. B. Haynes, J. W. Riley.

At the Examination in May, CERTIFICATES OF SPECIAL DISTINCTION were awarded to the following boys:

First Class.—H. L. Gantt, John Johnson.

Second Class.—A. Edwards, W. I. Jones, R. Smith.

Third Class.—C. Young.

Fourth Class.—J. D. Brooks, R. E. L. DeWitt, J. G. Traylor.

Fifth Class.—C. H. Sumwalt.

Sixth Class.—A. H. Atwood, A. B. Haynes, J. W. Riley.

THE FIRST PRIZE FOR DECLAMATION

Was conferred by the Educational Committee of the Board of Trustees on

C. Young.

On the recommendation of the Committee, a

SECOND PRIZE FOR DECLAMATION

Was awarded to

W. I. Jones.

Prize Scholarships.

By resolution of the Board of Trustees, the term for which boys are entered in the School expires when they reach the age of 16 years.

But to encourage a spirit of excellence and attention to duty, as well as to furnish still further advantages to those who are most worthy, the Board has established scholarships, which are conferred as prizes at the end of each session on those boys who, up to the age of 16 years, have best improved the opportunities afforded them at the School.

Recipients of these Scholarships are entitled to the privileges of the School for an additional year, and are required, in consideration thereof, to perform such extra duties as may be assigned to them.

In accordance with this action of the Board, Prize Scholarships for the year 1877–78 were conferred on

J. D. Brooks,

A. Edwards,

H. L. Gantt,

C. Young.

Course of Instruction.

The School was divided into six classes.

The First Class (the highest) completed Balfour Stewart's Physics, and sixty pages of Peck's Mechanics; completed Eliot & Storer's Chemistry; read in German, Minna von

Barnhelm und Wilhelm Tell, with exercises: reviewed Algebra, Solid Geometry, Plane Trigonometry and Surveying; completed Morse's First Book of Zoology, Tenney's Natural History of Animals and nine chapters of Hutchison's Physiology; twenty chapters of Shaw's English Literature and ten chapters of Jevons' Logic. Music and Declamation through the year.

The Second Class completed Eliot & Storer's Chemistry, Solid Geometry, Plane Trigonometry and Surveying; read in German, Minna von Barnhelm und Wilhelm Tell; Morse's First Book of Zoology, Tenney's Natural History of Animals and nine chapters of Hutchison's Physiology; Miss Thompson's History of England, twenty-eight chapters of Onderdonk's History of Maryland, ten chapters of Jevons' Logic, and Swinton's School Composition. Music and Declamation through the year.

The Third Class completed Swinton's U. S. History, McGuffey's Spelling Book; read in German four acts of Minna von Barnhelm; completed Venable's Algebra; Gray's How Plants Grow; Bryant and Stratton's Common School Book-Keeping, through Single Entry; Swinton's School Composition; read McGuffey's Fifth Reader and selections from Irving and Addison. Music and Declamation through the year.

The Fourth Class completed Guyot's Intermediate Geography; three-fourths of McGuffey's Spelling Book; White's Arithmetic, Venable's Algebra through Simple Equations of first degree; read about 30 pages of Otto's and 50 pages of Adler's German Reader; completed Gray's How Plants Grow; Bryant and Stratton's Common School Book-Keeping through Single Entry; Swinton's Language Lessons and Swinton's School Composition to Part IV. Music and Declamation through the year.

The Fifth Class completed Guyot's Elementary Geography; half of McGuffey's Speller; Arithmetic to Percentage; fifty chapters of Swinton's Language Lessons; Writing. Music and Declamation through the year.

The Sixth Class completed half of Guyot's Elementary Geography; one third of McGuffey's Spelling Book, Arithmetic through Common Fractions; thirty chapters of Swinton's Language Lessons; Writing. Music and Declamation through the year.

TEXT-BOOKS.

The following were used during the session: Holy Bible; McGuffey's Speller and Reader; Spencerian Copy-Books; Guyot's Geographies; Walton's Arithmetical Tables, White's and Venable's Arithmetics, with Ray's and Fish's Test Examples in Arithmetic; Venable's Algebra; Ray's Geometry; Beasley's Trigonometry; Davies' Surveying; Swinton's Language Lessons, English Grammar, and Composition; Jevons' Logic; Shaw's English Literature; Swinton's History of the United States; Onderdonk's History of Maryland; Thompson's History of England; Walter Smith's Drawing Books; Bryant and Stratton's Book-Keeping; Balfour Stewart's Physics; Peck's Mechanics; Eliot and Storer's Chemistry; Gray's Botanics; Tenney's Zoology; Otto's German Grammar; Otto's and Adler's German Readers; Morse's Zoology; Hutchison's Physiology.

Religious Instruction.

The School is always opened with religious exercises, and closed with sacred music. On Sunday, the boys are required

to attend services at the neighboring churches when the weather permits, and systematic Bible-class instruction is given every Sunday night during the school session.

Military Tactics.

The School is organized into two military companies, and regularly drilled about half an hour a day. Only the simpler evolutions of squad and company drill are taught, without arms. Four Sergeants and four Corporals are appointed each year, who not only have authority over the company while in rank, but have considerable power and responsibility in the general management and discipline of the school.

The following were the officers for the past year:

H. L. Gantt, First Sergeant.
J. Johnson, Second Sergeant.
J. G. Traylor, Third Sergeant.
J. D. Nicols, Fourth Sergeant.
R. E. L. DeWitt, First Corporal.
W. I. Jones, Second Coporal.
A. Edwards, Third Corporal.
J. D. Brooks, Fourth Corporal.

Length of Session.

The school session of the past year opened on the 14th of August, and continued till the 2d of June, a period of 42

weeks. It was divided into two terms, the second of which began on Feb. 1.

The next session will open on the 13th of August, and close on the 1st of June.

Distribution of Daily Exercises.

The work of the day has been distributed as follows:

The boys rise at 6, dress, and make up their beds. The rooms are then put in order by those boys whose turn it is to perform this duty, and a Sergeant afterwards inspects rooms and beds. At 6:45, chapel exercises for 15 minutes, after which a company inspection is held by the Sergeants. Breakfast at 7. At 7:40, recitations begin, and continue, with two recesses of ten minutes each, till 1, at which time the school is dismissed with music, and the boys march out. Company inspection at 1:15.

Dinner at 1:30. At 2, squad or company drill. The rest of the afternoon is given to play, or in busy seasons to outdoor work. Those boys, however, who fail on the morning's recitations, are required to devote a part of the afternoon to making up the deficiency.

Supper and inspection, at 6:30. After supper the School Library is opened, and the boys are allowed to take out books. At 7, the preparation of lessons for the next day is begun, and is continued for an hour and a half. A part of this study time, however, is taken up with declamation, once a week. Music from 8:30 to 9:10. At 9:20, all are required to be in bed, and the lights are put out.

Time Given to the Different Studies.

The following Table gives the number of hours that were assigned per week to the different studies during the Session 1876–77.

	I. class	II. class	III. class	IV. class	V. class	VI. class
English, (including Spelling, Reading, Grammar, and Declamation.)	.....	4½	6½	8	9½	8
English Literature	4	.....	.....	.....	.....	.....
History	.....	4	4½	.....	.....	.....
German	5½	5½	5	5	.....	.....
Geography	.....	.....	.....	3½	4½	3
Mathematics	5	5	4	4½	6	10
Physics	4½	.....	.....	.....	.....	.....
Chemistry	4	4	.....	.....	.....	.....
Zoology	3½	3½	.....	.....	.....	.....
Botany	.....	.....	2	2	.....	.....
Drawing	2½	2½	3	2	2	1
Book-keeping	.....	.....	2	2	.....	.....
Writing	.....	.....	.....	.....	3	3
Music	2	2	2	2	2	2
Total	31	31	29	29	27	27

School Library.

A Library for the use of the scholars and officers of the School has been established. It now contains about 950 volumes, which have in great part been selected with reference

to furnishing the boys with pleasant and healthful reading. Other books will be added from time to time, as means and opportunity permit.

Out-Door Work.

During the session of the School, which extends over ten months of the year, the out-door work required of the boys is little, and is not allowed to interfere with school duties—the conviction being entertained that it would be unwise to require any considerable amount of manual labor of boys while their energies are fully occupied with study. The result of such a requirement would be to cripple the efficiency of the School without securing any compensating advantage. Yet during the session, there are many ways in which the boys aid in the current farm and garden work. A certain amount of out-door work to be done in their play-time is the penalty attached to many minor offences, (not failures in recitation,) and takes the place of translations, or columns of words to be written, and the simple confinement, that constitute the usual penalties for such faults. In this way, almost every afternoon a number of boys are required to work at tasks assigned them, for from one to two hours. In addition to this, in busy seasons, such as the time for corn-planting and corn-gathering, all the pupils are requied to work on Saturdays, and sometimes in the afternoons. Such work, however, is considered as extra, and is only imposed when it cannot be conveniently avoided.

For the months of June and July, covering the period most important as regards garden and farm work, School duties are suspended, and the boys are regularly employed

out of doors. They work from 6 to 7 in the morning, and from 8 to 12. In the afternoon they are free, except when penalties have to be worked off, or when harvest renders it necessary to keep the whole force at work all day.

Care is taken to so vary and arrange the work assigned, as to familiarize each boy with all the more important operations on the farm and in the garden.

Furloughs and Visits.

Furloughs are given to all the boys for two or three days at Christmas, to allow them to visit their homes or friends. A holiday varying in length from ten to four days, according to the standing of the boy during the preceding session, is also given at some time during the vacation months.

The afternoons of the first Saturday in April and the first Saturday in October are set apart for visits to the boys from their relatives and friends. At no other time are visits to the boys permitted.

Examinations

Are held at the end of every other month on all passed over during the two months, and at the end of each half-session on all passed over during the half-session. They are conducted chiefly in writing, the scholars receiving no help of any kind from any source. The examination counts one-half: that is, the average of all the marks on the daily recitations during a month, combined in equal ratio with the mark received on

the examination, gives the scholar's standing for the month; and the average of all the monthly standings, combined equally with the marks on the half-session examination, gives the scholar's final standing for the half-session. The average of the two half-session standings is the standing for the whole year.

The following are selections from the examinations that were given for the half-session that began February 1st, and ended May 27th, 1876.

FIRST CLASS.

PHYSICS AND MECHANICS.

Last 120 pp. Balfour Stewart's Elem. Physics, and about 60 pp. selected from Peck's Mechanics.

Explain the cause of color of red glass. Of a green leaf. If red glass be heated until it becomes luminous, what kind of light will it emit? Why? An ink spot is made on polished platinum which is then intensely heated, what will be the appearance of the spot? A piece of red glass and the spotted platinum are heated in a white hot furnace; they are viewed through a hole in the side. What appearance will they present? Explain Coulomb's Torsion Balance, and show how it is used to measure the forces of electrical attraction and repulsion.

A current is passed through a wire hoop free to arrange itself in a vertical plane. What position will it assume? Describe solenoids and trace their analogy to magnetic needles. Give Ampére's Theory of magnetism and explain thereby why opposite magnetic poles should attract each other.

A cork ball whose specific gravity is 0.25, is in water 100 ft. deep. How long will it take to reach the surface?

The distance between the rails of a railroad track is 5 feet, radius of curve 600 feet, and the height of the car 5 feet. What velocity must be given the car that it may be on the point of overturning; rails being on same level?

A sluice gate 10 feet square is placed vertically in water, its upper side coinciding with the surface of the water. What is the pressure on the upper and lower halves of the gate respectively, the weight of a cubic foot of water being 62.5 lbs.?

A vessel is kept constantly full of water. How many cubic feet of water will be discharged per minute from an orifice 9 feet below the upper surface, having an area of 1 sq. in.; coëfficient of efflux being 0.6?

A cylindrical cork floats vertically, with 1 in. above, and $\frac{3}{10}$ in. below water. Determine the specific gravity.

Time about 3 hours.

FIRST AND SECOND CLASSES.

CHEMISTRY.

From p. 153 to p. 273 Eliot and Storer's Elementary Chemistry.

Give the general formula for the Olefiant-gas series of hydrocarbons. Write out the first four members of the series in a table, placing the formulas opposite each. Make Olefiant-gas and describe the nature of the reaction that takes place between the compounds used in making it. What does the name *Olefiant* mean and why is it given to the above gas?

Explain the chemistry of bread-making. What office does the yeast perform? Soda and Cream of Tartar are frequently used to raise cakes. What reaction goes on in them? What salt is left in the cakes? In explaining, use chemical names of Soda and Cream of Tartar. Might other salts be used instead of Cream of Tartar? If so, what ones?

What is meant by Isomerism? Illustrate by some examples from your text. In making a *lead tree*, zinc is suspended in lead acetate. What will be the ratio of the weight of the tree to the zinc used up? Whence are nearly all the potassium salts obtained? Show how crude potassium carbonate is gotten.

What is the use of potassium nitrate in gunpowder? How is gunpowder made? When gunpowder burns, state in general terms what reactions go on.

What are the characteristics of the Chlorine, Bromine and Iodine Salts of Silver? Illustrate by experiments.

Explain the formation of stalactites and stalagmites.

Give the metallurgy of Iron in full, using for the purpose of illustration an oxide of Iron with a considerable admixture of clay. Explain differences of wrought iron, cast iron and steel.

Time: three hours.

PHYSIOLOGY.

Nine chapters of Hutchison's Physiology.

I. Describe the framework of the body under the following heads: The Bones—Their form and composition—The properties of Bone—The skeleton—The Joints—The Spinal Column.

II. Describe the Integument or Skin: Its structure—The Nails and Hair—The Complexion—The Sebaceous Glands—The Perspiratory Glands—Perspiration and its uses—Importance of Bathing.

III. Describe the circulation: The Blood—The different substances found in it—The coagulation of the Blood—The uses of the Blood—Transfusion—Change of Color—The Heart, Arteries and Veins—Their form, situation, valves, cavities and offices—The Capillary Blood Vessels.

IV. Describe Respiration: The objects of Respiration—The Lungs—The Air-Passages—The movements of Respiration—Expiration and Inspiration—The frequency of Respiration—Changes in the Air from Respiration—Changes in the Blood—Comparison between Arterial and Venous Blood.

Time: $2\frac{1}{2}$ *hours.*

MATHEMATICS.

Logarithms, Plane Trigonometry, Surveying.

1. Prove the four fundamental propositions in Logarithms.
2. Of what numbers between 30 and 50 may the Logarithms be found from those of 2, 3, 5, 7, and how?
3. Given $x^y = y^x$, and $x^2 = y^3$, find x and y.
4. Show how one may find the area of a pentagonal field without an instrument to measure angles with.
5. The length of an irregular piece of land is 80 ch., and its breadths at nine equidistant points are 5.75 ch., 6.12 ch., 4.8 ch., 5.09 ch., 3.87 ch., 5.17 ch., 6 ch., 3.94 ch., 5.95 ch. What is the area?

6. Find the bearing and distance from station 3 to station 4 in the following survey:

1	N. $31\frac{1}{2}^\circ$ W.	10.00 ch.
2	N. $62\frac{3}{4}^\circ$ E.	9.25 ch.
3	——	——
4	S. $45\frac{1}{2}^\circ$ W.	10.40 ch.

7. What is the perpendicular height of a hill, its angle of elevation taken at the bottom of it being 46°, and the angle of elevation taken 200 yards farther off, on a level with the bottom, being 31°?

8. Deduce the general formula for finding the difference between the true and the apparent level of objects.

Time: $2\frac{1}{2}$ *hours.*

GERMAN.

Translate: Ja, lieber Wilhelm, meinem Herzen sind die Kinder am nächsten auf der Erde. Wenn ich ihnen zusehe und in dem kleinen Dinge die Keime aller Tugenden, aller Kräfte sehe, die sie einmal so nöthig brauchen werden; wenn ich in dem Eigensinne künftige Standhaftigkeit und Festigkeit des Charakters, in dem Muthwillen guten Humor und Leichtigkeit, über die Gefahren der Welt hinzuschlüpfen, erblicke, alles so unverdorben, so ganz!—immer, immer wiederhole ich dann die goldenen Worte des Lehrers der Menschen: "Wenn ihr nicht werdet wie eines von diesen!" Und nun, mein Bester, sie, die unseres Gleichen sind, die wir als uns unsere Muster ansehen sollten, behandeln wir als Unterthanen. Sie sollen keinen Willen haben!—Haben wir denn keinen? Und wo liegt das Vorrecht?—Weil wir älter sind und gescheidter?—Guter Gott von deinem Himmel! alte Kinder siehst du und junge Kinder und nichts

weiter; und an welchen du mehr Freude hast, das hat dein Sohn schon lange verkündigt. Aber sie glauben ah ihn, und hören ihn nicht—das ist auch was Altes—und bilden ihre Kinder nach sich, und—Adieu, Wilhelm! ich mag darüber nicht weiter radotiren.

Translate: Sie spielte Verschiedenes mit einiger Fertigkeit, in der Art, wie man es auf dem Lande zu hören pflegt, und zwar, auf einem Klavier, das der Schulmeister schon längst hätte stimmen sollen, ween er zeit gehabt hätte. Nun sollte sie auch ein Lied singen, ein gewisses zärtlichtrauriges: das gelang ihr nun gar nicht. Sie stand auf und sagte lächelnd, oder vielmehr mit dem auf ihrem Gesicht immerfort ruhenden Zuge von heiterer Freude: "Wenn ich schlecht singe, so kann ich die Schuld nicht auf das Clavier und den Schulmeister werfen; lassen Sie uns aber nur hinauskommen, dann sollen Sie meine Elsasser-und Schweizerliedchen hören, die klingen schon besser.

Put into German: Grateful nations erect monuments of brass or of stone to their great men. Have you learned your exercise? Let us take a walk. Which of your servants is to go? The pupils have not been allowed to go out. We left England on her account. Love, the practice of which is our duty, makes us good and happy. I will tell you all I know. My friend has issued a new grammar. I should be happy if I had as many books as you have. I ordered him to withdraw. He told me you were to visit him. I bade him do so. He did it to frighten you. That was a very fatiguing journey. I am glad to hear from him. This man died unknown. London bridge is 920 feet long, 55 feet high, and 56 wide. I am tired reading. Human life is never free from troubles.

Time: 3 hours.

THIRD AND FOURTH CLASSES.

BOOK-KEEPING.

Book-keeping by Single Entry.

Memoranda of nine business transactions were given to be entered in Sales-Book, Day-Book, Cash-Book and Ledger, or in so many of these as the nature of the transaction required. From these books the class was required to make out a statement showing the condition of the business.

(*Time:* $2\frac{1}{2}$ *hours.*)

BOTANY.

All of Gray's How Plants Grow.

The examination consisted in analyzing two flowers and writing out all the steps of the analysis. The flowers were *Geranium Maculatum* and *Diervilla sessilifolia.*

Time: 1 *hour* 40 *min.*

FOURTH CLASS.

GEOGRAPHY.

From p. 68 *to p.* 98 *Guyot's Intermediate Geography.*

Draw a map of Maryland and Delaware, placing the following on your map:

Alleghany and Blue Ridge mountains.

Susquehanna, Patuxent, Patapsco, Monocacy and Antietam rivers.

Annapolis, Baltimore, Cumberland, Washington, Frederick, Dover, Wilmington, Hagerstown, Cambridge, Chestertown, Ellicott City, Easton and Havre-de-Grace.

Locate and tell something about:

Galveston, Rochester, Oswego, Wheeling, Pittsburg, Richmond, St. Augustine, Mobile.

Name the principal regions in the U. S. where the following minerals are found: Iron, Coal, Lead, Copper, Silver, Gold, Salt, Zinc.

Define meridians and parallels Why are meridians so called? What is the equator? Define latitude and longitude. Name some cities, countries or islands on the equator—On the Tropic of Cancer—On the Tropic of Capricorn.

Pt. Barrow is in lat. 71 N. C. Horn in lat. 55 S Required length of New World from N. to S. C. St. Roque is in long. 34 W. C. Prince of Wales in long. 170 W. Required breadth of New World from E. to W.

Give two proofs of the earth's roundness. What two motions has the earth, and how long does it take to make each? Give the diameter and circumference of the earth. Name the zones and give breadth of each in degrees.

Name the principal races of men and tell what parts of the earth they inhabit. Under what style of government do you live? What are the names of the President and Vice President, and for how long are they elected? What is a monarchy? Name one with its ruler.

Time: 4 hours.

SPELLING.

First 110 *pp. McGuffey's Speller.*

Monarchy,	Statistical,	Perpendicular,
Obsequies,	Answerable,	Trigonometry,
Hydrogen,	Mercenary,	Etiquette,
Sidereal,	Excellency,	Versatile,
Embarrassment,	Variegate,	Celery,
Philanthropy,	Dissyllable,	Masquerade,
Alchemy,	Rhinoceros,	Neighbor,
Laudable,	Monopoly,	Heinous,
Talkative,	Unanimous,	Convey,
Aqueduct,	Precarious,	Inveigh,
Rhapsody,	Barometer,	Magazine,
Projectile,	Accelerate,	Mandarin,
Sequester,	Synecdoche,	Exaggerate,
Synopsis,	Analytic,	Exorbitant,
Proboscis,	Acquiescence,	Seraglio,
Epistle,	Predecessor,	Financier.
Hydraulic,	Incendiary,	

Time: 1 *hour.*

FIFTH CLASS.

GRAMMAR.

Fifty Lessons of Swinton's Language Lessons.

1. Name and define all the "parts of speech."

2. Tell the "parts of speech" of each word in the following sentences, and *parse* all the nouns: The smiling daises blow beneath the sun. Forth in the pleasing spring thy beauty walks. Thomson, the poet, is dead. I have not seen John's coat. Charles came here.

3. What does "William and Mary's share was five thousand dollars," mean? Write the possesive plural of Patriarch, Monkey, Lady, Man, Horse, Church.

4. Which are the *principal parts* of a verb? Give the *principal parts* of the following: Lie, (to recline,) Lay, Drink, Come, Ring, Fly, Flee, Wear, Eat.

5. Write, in the Passive voice, the third person singular of each tense of the Indicative, Subjunctive and Potential Moods, andthe Infinitive, Imperative and Participles of the verb *know*.

6. Analyze the following sentences, pick out the verbs in them and tell the voice, mood, tense, number and person of each. The plowman homeward plods his weary way. The moon threw its silvery light upon the rippling waters of the lake. The husbandman's treasures are renewed yearly. The sloth in its wild state passes its life on trees.

7. In the following sentences make the needed corrections and tell why the sentences are now wrong: I do not know who I love best. Between you and me, all is not gold that glitters. Between you and I, Charles is not to be trusted. Eva, she forgot her lunch basket. Richard is latter than me. Ask mother to let me and you go to the party. Both Webster and Clay loved his country. Any body in their senses would have known better.

8. Correct the following, and tell what is now wrong: Please hand me that there knife. I love those kind of apples. Them apples are sour. I do not know who done it. I come to town this morning. Grandmother was some better last night. The union of two great rivers produce the La Plata.

9. Write a letter at least five lines long.

Time: 5 hours.

SIXTH CLASS.

ARITHMETIC.

Short Course of Common Fractions.

1. Find the least common multiple of 8, 28, 20, 24, 32, 48.
2. Find the greatest common divisor of 2, 3, 4, 5, 6, 7, 8, 9.
3. Reduce $145\frac{3}{40}$ to an improper fraction.
4. Express the quotients of $576 \div 432$, $216 \div 324$, $528 \div 506$ in their simplest form.
5. Reduce $\frac{1}{2}$ of $2\frac{1}{2}$, $\frac{5}{6}$ of 3, and $\frac{3}{7}$ of $\frac{7}{9}$ of $6\frac{1}{4}$ to equivalent fractions having least common denominator.
6. Add $\frac{5}{7}$, $\frac{9}{14}$, $\frac{3}{7}$ of $5\frac{1}{4}$, and $65\frac{5}{21}$.
7. A man owning $\frac{2}{3}$ of a factory sold $\frac{3}{5}$ of his share; what part of the factory did he still own?
8. Reduce $\dfrac{\frac{5}{6}-\frac{1}{3}}{\frac{3}{4}+\frac{8}{9}}$ to a simple fraction.
9. If a number be diminished by $\frac{5}{7}$ of $\frac{1}{2}\frac{2}{5}$ of itself, the remainder will be 69: what is the number?
10. Reduce 6, 9, 12. 20 to fractions having 15 for their denominator.
11. Reduce $\frac{17}{32}\frac{80}{4}$, $\frac{39}{61}\frac{27}{1}$, $\frac{22}{27}\frac{20}{9}\frac{5}{3}$ to their lowest terms.
12. What is the least common denominator of the fractions $\frac{7}{15}$, $2\frac{2}{9}$, $\frac{27}{20}$, $\frac{5}{24}$?
13. $3\frac{1}{4} + 4\frac{7}{8} - 5\frac{1}{2} + 16\frac{5}{8} - 7\frac{11}{24} + 10 - 14\frac{5}{6} = \quad ?$
14. Find the value of $\frac{1}{2} \times 17\frac{7}{8} \times \frac{3}{5}$ of $\frac{4}{11}$. Of $21\frac{1}{3} \times \frac{1}{2} \times \frac{4}{9}$.
15. Reduce $\dfrac{23}{2\frac{2}{3}+\frac{2}{5}}$; $\dfrac{3\frac{3}{4}}{5}$; $\dfrac{8\frac{3}{4}}{5\frac{5}{8}}$, to their simplest form.

Time: 4 hours.

Register of Scholars

For the First Term, Session of 1877-'78.

First Class.

EDWARD, AMERICUS
GANTT, HARRY LAURENCE
JOHNSON, JOHN
SMITH, RUSH

Second Class.

BIELER, ALPHONSOS HENRY
BROOKS, JOSEPH DIXON
DEWITT, ROBERT E. LEE
FARDWELL, HARRY RINGGOLD
GLASCOCK, EUSTACE STRAUGHN
NETRE, EDWARD
POET, HARRY BENSON
ROSSELL, JOHN WILLIAM
TRAYLOR, JAMES GEDDY
YOUNG, CHARLES

Third Class.

ADAMS, WALTER SCOTT
BETTS, WILLIAM BAILIE
BREMER, HARRY COOPER
BRUNDIGE, EDWARD PARISH
CRANE, ARTHUR BATHURST
FAIRBANK, WILLIAM PRESCOTT
GARRETT, FRANK LEE
LINDSLEY, WILLIAM LAWSON
NEVINS, WM. WILBERFORCE
RIACH, WILLIAM
ROGERS, GRAFTON LLOYD
SUMWALT, CHARLES HAMLIN

Fourth Class.

ATWOOD, ALBERT HAMMOND
BOURNE, THOMAS
CANBY, HARRY LEE
FALES, CHARLES ESHBAUGH
GRIFFITH, ALFRED
HAYNES, AUSTIN BALDWIN
MARRIOTT, JAMES CURLEY
MORRIS, JOHN EDWARD
RICHARDS, ARTHUR ORLANDO
RILEY, JOHN WILLIAM
VAN HOLLEN, GEORGE HENRY
WILKINSON, ALLEN BYRON

Fifth Class.

BURGESS, GEORGE LEWIS
DEWITT, WILLIAM RUSSELL
DORRITTEE, T. E. ARINGDALE
EVANS, WALTER MEAD
LUSBY, LOUIS EDWARD
MCGALL, DAVID
MILBURN, ROBERT FREDERICK
MILLER, GEORGE WINCHESTER
SANDERSON, HARRY SCHLEY
TITCHNER, JAMES
WIGART, PLINY EARL
WILLIAMS, GEORGE FRANKLIN

DONATIONS.

The following gentlemen have made donations to the School during the year.

JOHN MURPHY, ESQ., Onderdonk's History of Maryland.

GEN. JOHN EATON, Public Libraries in U. S.

PROF. JOSEPH HENRY, Smithsonian Report, 1875.

W. HORACE SOPER, ESQ., Quackenbos's History of the World, Quackenbos's Illustrated Lessons in our Language, Freeman's History of Europe.

HON. J. B. PEASLEE, Cincinnati Public Schools, 1875–76.

GINN & HEATH, Whitney's Essentials of English Grammar.

GEN. A. A. HUMPHREYS, Report of Reconnoissance from Carroll, Montana Territory, to Yellowstone National Park.

D. L. BARTLETT, ESQ., Congressional Reports, 13 volumes.

GEN. A. J. MYER, Report Chief Signal Officer, 1876.

JOHN ROBINSON, ESQ., Check List of the Ferns of North America.

J. KRUTTSCHNITT, ESQ., Thirty mounted microscopic objects.

ANNUAL REPORTS

OF THE

Inspector and Sealer of Gas Meters,

INSPECTORS OF WEIGHTS AND MEASURES,

AND THE

Superintendent of City Hall,

TO THE

MAYOR AND CITY COUNCIL

OF BALTIMORE,

FOR THE YEAR ENDING DEC. 31, 1877.

REPORT

OF THE

INSPECTOR AND SEALER OF

GAS METERS.

REPORT.

OFFICE OF INSPECTOR AND SEALER OF GAS METERS,

Baltimore, December 31st, 1877.

To the Honorable the Mayor and

City Council of Baltimore.

GENTLEMEN:

I have the honor of submitting the enclosed as the report of the number of Gas Meters inspected and sealed, also rejected, for the fourteen (14) months ending December 31st, 1877. Also some other matters connected with the office during that time.

The subject of economically using gas, to obtain the best result from the quantity consumed, is an interesting one, and will amply repay any one using a large quantity to fully investigate, as we believe it is under our own control to a very great extent, if we avail ourselves of the information that can be obtained, and some of the many appliances made for that purpose.

This statement is fully illustrated by the fact that the cost for the city street lamps in the two gas companies has only varied in the average of a few cents per month and thirty-seven (37) cents per annum since the present burners have been in use.

It will be remembered that the City pays for gas consumed by the street lamps by meter, the average being calculated by a number of meters placed in the lamp-posts in the various parts of the city, the statement being taken the first of each month.

'Tis true the bills for the past year have increased about one dollar and fifty cents per lamp. In consequence of the labor troubles in July, the lamps were used a greater number of hours; also, in consequence of the large number of gasoline lamps in use, we are required to commence lighting fifteen to twenty minutes earlier than in former years, as the gasoline lamps require more time to light them. Another reason for the increase is, the burners have been in use three (3) years and require repairs; this I am doing as fast as can be with the small number we have on hand in excess of those in use; when repaired they will be as good as new.

Notwithstanding the increase, the saving is fully up to the last four years, of sixty (60) thousand dollars per annum.

During the year I have brought to the office and inspected the meters from the engine houses of the City Fire Department. Eight (8) of them were incorrect and out of order.

Also fifty-nine (59) street lamp, and market house meters. Fifteen of them were incorrect against the city, others out of order. All the errors and defects were promptly remedied by the Gas Companies.

I would respectfully call your attention to the fact that the City's contract with the Gas companies for the supply of gas in the public buildings and street lamps expired on the first of November. Doubtless a much more favorable contract for the city can be made now than when the last one was made. I shall be happy to advise with any committee, or others, you may appoint in making a new contract, as there are other

matters to be taken into consideration besides the price per thousand feet of gas, that should be included in any contracts that may be made.

The ordinance passed by the late City Council prohibiting any unauthorized person lighting or extinguishing the street lamps, has been of great benefit to the city by remedying many irregularities that existed before, and saved us much trouble.

It would perhaps not be out of place to call attention to the fact that the Inspector has an office with much apparatus, provided by the city to test meters, burners, the pressure of gas, regulators, &c., which on examination, to say the least, would be interesting if not profitable.

Respectfully submitted.

F. W. KING.

TABLE

Showing the Number of Meters Inspected and Sealed, also Rejected.

	SIZE OF METERS.											
No. Lights.....	2	3	5	10	20	30	45	60	80	100	150	200
	144	4005	6336	992	237	73	36	10	4	23	2	1

No. Lights.....	2	3	5	10	20	30	45	60	80	100		
Rejected.....	15	333	446	103	24	9	7	1	1	4		

REPORTS

OF THE

Inspectors of Weights and Measures

OF THE

WESTERN AND EASTERN DISTRICTS.

Report of the Inspector of the Western District.

To the Hon. Geo. P. Kane, Mayor.

SIR:

I have the honor to report that the following weights and measures have been inspected by me from January 1st to December 31st, 1877, inclusive:

Y. P. STONE,
Inspector for West. Dist.

Scales. 7,251		Weights. 23,958		Measures. 13,170	
Platform	1,308	50	5	5 gal.	61
Spring Bal	1,444	25	5	1 "	706
Balance	406	14	22	½ "	970
Dish's	3,747	7	208	qt.	2,727
Potato Scale	346	4	2,422	pt.	3,123
	7,251	2	3,572	gill	1,080
		1	3,944	½ "	73
					13,170
		½	3,836		
		¼	2,335		
		2 oz.	2,987		
		1 "	3,266		
		½ "	2,338		
			23,958		

Amount received	$3,526 60
Expenses	1,062 00
	$2,464 60

All of which I respectfully submit.

Y. P. STONE.

Jan. 1st, 1878.

Report of the Inspector of the Eastern District.

To Hon. Geo. P. Kane, Mayor.

SIR:

The undersigned beg leave to report that he has inspected the following number of scales, weights and measures during the year 1877:

23	50	lb.	Weights.	885	Platform Scales.
5	25	"	"	205	Potato Scales.
26	14	"	"	863	Spring Balances.
28	8	"	"	2,612	Beams.
131	7	"	"	127	Pat. Balances.
1,551	4	"	"	26	5 gal. Measures.
43	3½	"	"	4	4 " "
1,983	2	"	"	18	3 " "
2,274	1	"	"	6	2 " "
2,135	½	"	"	307	1 " "
1,535	¼	"	"	554	½ " "
1,967	2	oz.	"	1,199	qt. "
1,816	1	"	"	2,365	pt. "
1,111	½	"	"	1,258	½ pt. "
				521	gills.
				42	½ "

Amount received	$2,504 78
Expenses	817 16
	$1,687 62

Very respectfully,

THOS. M. ROBIER,

Inspector Eastern District.

Baltimore, Jan. 7th, 1878.

REPORT

OF THE

SUPERINTENDENT

OF THE

CITY HALL.

REPORT.

To the Honorable Geo. P. Kane,

Mayor of Baltimore.

Dear Sir:

I have the honor to submit my report of the department under my charge, from the 31st October, 1876, to the 31st December, 1877, inclusive.

	Dr.
To the sum appropriated for this department, per general appropriation ordinance, approved June 1, 1877	$15,000 00
Special appropriation, approved December 13, 1877, to pay bills incurred between the 31st of October and the 31st December, 1877	1,775 08
Total	$16,775 08

By the payment of the following bills, from October 31, 1876, to December 31, 1877:

	Cr.
For brooms, brushes, buckets, &c	$ 446 94
Cleaning rooms, corridors, &c	5,040 00
Coal	1,957 50
Amount carried forward	$7,444 44

Amount brought forward.....	$7,444 44
Covering chandeliers, mirrors, &c.....	225 00
Incidental expenses.....	387 53
Ice.....	581 27
Winding up the tower clock, Police and fire alarm striker, ...	401 10
Repairs to furniture, gas and water fixtures.....	538 30
Gas.....	5,411 50
New furniture, &c.....	395 00
Cleaning carpets, curtains, &c.....	515 00
Laborer at $50 per month.....	700 00
Removing and hauling ashes.....	311 10
	$16,910 24

Respectfully submitted,

JAMES DONNELLY,

Sup't City Hall.

FORTY-NINTH ANNUAL REPORT

OF THE

Board of Commissioners

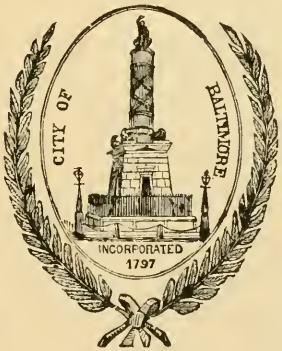
OF

PUBLIC SCHOOLS

TO THE

MAYOR AND CITY COUNCIL OF BALTIMORE,

For the Fourteen Months ending December 31, 1877.



BALTIMORE:
PRINTED BY JOHN COX,
CITY PRINTER,
Corner Pratt Street and Spear's Wharf.

1878.

Board of Commissioners of Public Schools

FOR 1877.

OFFICERS.

PRESIDENT.....JOHN T. MORRIS.
SECRETARY.....HENRY M. COWLES.
SUPERINTENDENT.....HENRY E. SHEPHERD.
ASSISTANT SUPERINTENDENT.....HENRY A. WISE.

MEMBERS OF THE BOARD.

WARD.		TERM EXPIRES.
1.	A. J. DALRYMPLE, M. D.	1881.
2.	GEORGE L. HAMEL.	1879.
3.	WILLIAM C. ATKINSON	1880.
4.	S. BERNEI	1878.
5.	WILLIAM M. IVES	1881.
6.	JOHN F. HANCOCK	1880.
7.	ROBERT H. SINCLAIR	1878.
8.	WILLIAM P. TONRY	1879.
9.	JOSHUA PLASKITT	1879.
10.	JOHN T. MORRIS	1878.
11.	JOHN P. POE	1880.
12.	CHARLES E. PHELPS	1881.
13.	JOHN L. LAWTON	1879.
14.	G. S. GRIFFITH, JR.	1880.
15.	JOHN FERRY	1881.
16.	JOHN A. WRIGHT	1878.
17.	H. B. ROEMER	1880.
18.	JAMES F. DEALE	1878.
19.	WILLIAM W. MURRAY, M. D.	1879.
20.	NEWTON A. RAMSBURG	1881.

Standing Committees.

Baltimore City College.

Messrs. Phelps, Hancock, Tonry, Griffith, President and Superintendent.

Female High Schools.

Messrs. Poe, Hamel, Roemer, Ives, Murray, Atkinson, President and Superintendent.

Normal School.

Messrs. Tonry, Murray, Wright, and Superintendent.

Grammar Schools.

Messrs. Sinclair, Dalrymple, Ferry, Lawton and Deale.

Primary Schools.

Messrs. Atkinson, Sinclair, Bernei, Plaskitt, Ramsburg and Assistant Superintendent.

English-German Schools.

Messrs. Wright, Hamel, Roemer, Bernei, Ives, Superintendent and Assistant Superintendent.

Colored Schools.

Messrs. Hancock, Phelps, Hamel, Wright, Plaskitt and Superintendent.

Books.

Messrs. Hamel, Poe, Phelps, Tonry, Atkinson, President and Superintendent.

Furniture.

Messrs. Ives, Lawton, Griffith, Plaskitt and Ferry.

Music.

Messrs. Roemer, Wright, Dalrymple, Griffith and Deale.

Discipline.

Messrs. Bernei, Murray, Ramsburg, Deale, Ives, President, Superintendent and Assistant Superintendent.

Accounts.

Messrs. Griffith, Lawton, Ives, Roemer and Atkinson.

Expenditures.

Messrs. Roemer, Ferry, Murray, Plaskitt, Deale and President.

Examinaitons.

Messrs. Dalrymple, Tonry, Atkinson, President, Superintendent and Assistant Superintendent.

Bi-Weekly Reports.

Messrs. Plaskitt, Ferry and Sinclair.

Conference.

Messrs. Ferry, Poe, Phelps, Ramsburg and Bernei.

Buildings.

Messrs. Ramsburg, Griffith, Lawton, Tonry and Wright.

Printing.

Messrs. Deale, Sinclair and Hancock.

Health.

Messrs. Murray, Dalrymple and Hancock.

Drawing.

Messrs. Lawton, Hamel, Poe, Hancock and Sinclair.

Intestate Estates.

Messrs. Poe, Phelps and President.

REPORT

OF THE

BOARD OF COMMISSIONERS

OF

PUBLIC SCHOOLS OF BALTIMORE.

OFFICE OF COMMISSIONERS OF PUBLIC SCHOOLS,

January 1, 1878.

To the Honorable the Mayor
and City Council of Baltimore:

In compliance with the ordinance of the city, establishing a system of Public Schools, the Board of Commissioners respectfully presents its

FORTY-NINTH ANNUAL REPORT,

showing its transactions with reference to the schools, and an account of their receipts and disbursements since the last report, and their resources and wants for the next year.

In consequence of the change of the fiscal year in all the departments of the City Government from the 31st October to 31st December, this report will embrace a period of fourteen months, and the expenditures of the schools are necessarily larger than heretofore.

The object of these Annual Reports is to enable you to ascertain the condition of the schools, and to judge of the work that is done by them, and thus to intelligently estimate and supply their wants. The appropriations for their support must necessarily be increased from year to year in proportion to their growth. The annual increase of pupils requires the erection of new buildings and the employment of additional teachers, with an increase of all the incidental expenses, and it is proper therefore that the public should know whether the appropriations for this purpose are judiciously expended, and whether the results are commensurate with the outlay.

The control of the schools is vested in a body of citizens selected by you, who perform their duties according to the best of their ability, and without any compensation for their services. It must fairly be presumed that they accept this office of honor and trust for high and honorable considerations, and that they are actuated by a desire to promote the public welfare. Constituted as other men, and differing in their knowledge and views of the subject committed to their charge, they will necessarily sometimes err in their judgment and action. No system of schools is perfect and no management is faultless; and it is therefore desirable that those in charge of such an important interest should receive the advice and assistance of all good citizens, and especially of those in official position, who are interested in their full success.

It is necessary that those in authority who furnish the means for the support of the schools should cordially co-operate with those to whom their supervision is confided. There must be mutual confidence and good will to secure success. In the application of this rule, it is our duty to frankly report what has been actually accomplished, and what progress has been made, and to show what hindrances exist, if any, to a more

satisfactory development of our system of public education; and then it is your privilege to examine our work, and, if approved, to furnish the necessary aid to accomplish the desired results.

We cheerfully acknowledge the liberal spirit which has heretofore been exhibited by the City Authorities, in their prompt response to the requirements of the schools, thus enabling us to furnish greater educational facilities to those engaged in the work, and to remove some of the obstacles which have heretofore impeded their progress. We commence the work of the new year under the most favorable auspices, believing that public sentiment will sustain you in making the most liberal appropriations for the support of our schools, even in the midst of the business depression which exists.

School Statistics.

There are 129 schools under the charge of the Board, as follows:

Baltimore City College	1
Female High Schools	2
Grammar Schools	38
Primary Schools	59
Evening Schools	7
English-German Schools	5
Normal School	1
Colored Day Schools	12
Colored Evening Schools	4
	129

These schools have been conducted by 764 teachers, with the following attendance of pupils: 27,779 average daily attend-

ance, 33,946 enrolled, and 45,942 whole number during the year. The pupils were classified as follows:

Baltimore City College	389
Female High Schools	712
Grammar Schools	10,621
Primary Schools	20,801
Evening Schools	1,239
Normal School	184
Number of Male Teachers	113
Number of Female Teachers	651
Number of White Pupils	29,813
Number of Colored Pupils	4,133

The cost per pupil on enrollment was $17.57, and on average attendance $21.44 for the current expenses of the schools incurred by the Board, and was $18.80 on enrollment, and $22.46 on average attendance for the current expenses and repairs of buildings made by the Inspector of Buildings.

The average annual salary of the teachers was $611.

During the past year the increase in the number of pupils has been over 2,500, being more than double the usual annual increase of 1,000.

It is certainly a gratifying fact that the number of pupils continues to increase from year to year, thus indicating the confidence of the public in our system of education and its results.

In 1876 a School Census was taken by direction of the Board, showing that the total number of children in the city between 6 and 18 years of age was 69,303; of this number 30,867 were reported in the public schools, 14,559 in private

schools, and 23,877 not attending either, showing that more than one-third of the entire number of children of school age was not attending any school. It must not be presumed, however, that this large number has received no education whatever, and is growing up in ignorance; but, on the contrary, it is probable that a majority have been pupils of either public or private schools, and have completed the course of study adapted to their circumstances. But, even with this most liberal allowance, it is undoubtedly true that there are too many children in our city who are deprived of the opportunity of obtaining a suitable education, from parental neglect and other causes, and who will probably become a curse to the community in their after life. In view of such results, it is undoubtedly our duty to make our schools as attractive as possible, and to offer every reasonable incentive which could induce those persons to accept the advantages of free instruction.

The percentage of average attendance of pupils has increased during the past year, ranging from 90.8 in the English-German Schools to 72.0 in the Colored Schools, as follows:

English-German Schools	90.8
Baltimore City College and Female High Schools	89.0
Male Grammar Schools	86.2
Female Grammar Schools	83.7
Male Primary Schools	83.2
Female Primary Schools	80.0
Normal School	75.0
Colored Schools	72.0

Though the above average attendance is not entirely satisfactory, yet it is probably as good as that of any other city in which there is no compulsory law. Every possible effort is made by the teachers to encourage and enforce regular attend-

ance, and yet the desired result is not obtained, because many parents do not seem to fully appreciate the necessity of punctuality on the part of their children in attending school, and will not co-operate with teachers for that purpose. This is one of the defects of all school systems, and is a subject which is now claiming the serious attention of educators, with a view to devise some method for removing the existing evil.

A compulsory law, requiring the attendance of all children of school age, might not meet with general favor in our community, where it has always been voluntary, but certainly there could be no well founded objection to a rigid truant system, which compelled the regular attendance of all children who do voluntarily become pupils of our public schools.

Such a law has been adopted in connection with the public school system of several other cities, and the reports from those in charge of this department show that its enforcement is not only practicable, but its beneficial results have been so great as to secure for it the popular favor.

The plan is simple and effective. A superintendent of truancy assists the teachers in securing the punctual attendance of pupils by examining and reporting the causes of all cases of non-attendance, and arresting all who are found on the streets during school hours. Those who are reported, or arrested, are generally restored to their places in the schools, and non attendance and truancy are thus rapidly diminished.

We may deem it expedient to submit the matter to you hereafter, and to ask your approval in adopting a similar law in connection with the schools of our city.

RECEIPTS AND EXPENDITURES.

The receipts from all sources for the support of the schools for the year ending October 31, 1877, were as follows:

City Collector, City Taxes	$420,931 34
State Treasurer, for White Schools	136,954 73
State Treasurer, for Colored Schools	18,447 78
White Pupils, for use of Books	49,050 85
Colored Pupils, for use of Books	406 47
All other Sources	222 30
	$626,013 47
During the months of November and December additional receipts from the City Collector amounted to	55,303 43
And from Pupils for the use of Books	9,187 17
Making total receipts to December 31, 1877	$690,504 07

The total number of pay pupils is 13,959, and free pupils 19,987, and the amount collected by the Secretary of the Board from the former, for the use of books, for fourteen months ending December 31, 1877, was $58,644.49, which was paid to the City Register and placed to the credit of the School Fund.

A difference of opinion exists among the friends of our schools with reference to the policy of requiring payment for the use of books furnished to the pupils. The ordinance of the city directs that "There shall be no charge for tuition in any of the Public Schools, but it shall be the duty of the Commissioners to furnish all the necessary books and stationery for the several schools, and in general whatever fuel or other supplies the schools may require—the same to be paid for from the

Public School Fund; and each pupil shall pay, in advance, one dollar per quarter for the books used by him, which shall go to the School Fund; *provided*, that nothing in this section shall be so constructed as to prevent the Board from furnishing the use of books to the children of parents in indigent circumstances; *provided further*, that pupils may furnish their own books, if they so prefer."

This ordinance is in conformity with the Public School Law of the State, which authorizes the Board of County School Commissioners to charge one dollar quarterly for the use of books and stationery furnished to the pupils of the county schools. During the past year, the Board has carefully considered the matter, and refused to recommend the repeal of the ordinance, because the objections made to it did not seem to be sufficient to justify a change. The charge of one dollar, quarterly, is cheerfully and voluntarily paid by many parents who prefer to do so, and it yields a large annual contribution to the School Fund. The amount received from this source during the last year was nearly double the outlay for purchase of books. No child is excluded from the schools whose parents are unable or unwilling to pay the charge, and no distinction whatever is made between the two classes of pupils; all receive the same attention, and enjoy the same privileges.

The abolition of this charge would not increase the number of pupils, as none are now kept away by its imposition, but it would destroy the source of a considerable revenue to the schools, and the Board, therefore, could see no good reason for the proposed change in the law.

The estimated receipts from this source, during the present year, is $50,000.

The expenditures by the Board on account of the current expenses of the schools, and also by the Inspector of Buildings, for new buildings and repairs, to December 31, 1877, were as follows:

WHITE SCHOOLS.

Salaries of Teachers and Officers		$436,610 95
Rents and Ground Rents		23,772 53
Books and Stationery		29,757 15
School Furniture		19,042 56
Fuel		12,788 95
Heating Apparatus and repairing same		10,623 40
Repairs and cleaning of Buildings, Furniture, &c.,		4,311 06
Printing, Supplies, and Incidentals		9,439 71
		$546,346 31
Amount incurred previous to October 31, 1877, but not paid until after that date		3,686 67
Current Expenses to October 31, 1877		$550,032 98
Amount expended in November and December		86,754 82
Current Expenses for fourteen months, to December 31, 1877		$636,787 80
Amount paid by Inspector of Buildings for new Buildings and Repairs:		
New Buildings	$78,319 33	
Repairs of old Buildings	19,441 49	
		97,760 82
Total Expenses of White Schools		$734,548 62

COLORED SCHOOLS.

Salaries of Teachers	$38,718 15
All other Expenses	6,861 45
Current Expenses to Oct. 31, 1877	$45,579 60
Amount expended in November and December	8,912 20
Current Expenses for fourteen months, to December 31, 1877	$54,491 80
Amount paid by Inspector of Buildings, on account of new Building for Colored School No. 7	4,762 44
Total Expenses of Colored Schools	$59,254 24
Total Current Expenses of White and Colored Schools to end of old fiscal year, Oct. 31, 1877	$595,612 58
Total Current Expenses of White and Colored Schools, for November and December, to end of new fiscal year	95,667 02
Amount paid by Inspector of Buildings	102,523 26
Total Expenses to December 31, 1877	$793,802 86

The above statement shows that the amount expended on account of the Public Schools, from November 1, 1876, to December 31, 1877, a period of fourteen months, for debts incurred during that time, was $793,802.86, of which the Board disbursed $691,279.60, and the Inspector of Buildings the sum of $102,523.26 for new buildings and repairs.

APPROPRIATION FOR 1877.

The appropriation by the City Council for current expenses of the schools for the fiscal year ending October 31, 1877, was $620,000.

The amount paid by the City Register on the warrants of the Board for expenses incurred during the past year, as above mentioned, was $595,612.58; and on account of balance due from the preceding fiscal year of 1876, was $24,364.59, making the total sum of $619,977.17, thus leaving to the credit of this department a small unexpended balance. The expenses in November and December were paid in full, and the Board commences the new fiscal year free from debt.

In this connection it is proper to correct an erroneous impression which seems to prevail in the community, with reference to the powers of the Board in expending the money appropriated for the support of the schools. The matter of the expense of each department of the City Government is always a subject of serious consideration, and frequently of complaint—sometimes justly, but often without proper cause. So far as it is responsible for the expenditures of this department, the Board is willing to submit to the strictest scrutiny and to be judged by its acts. There is no evasion or concealment of these expenses, but for every dollar expended there is an approved voucher in the office of the City Comptroller, by whom all bills are paid, and there is no obligation imposed upon him to pay any bills about which he has any doubt. No member of the Board can be interested, directly or indirectly, in any contract for supplies for the use of the schools, and not a dollar is received or paid by him on account of any expenses. All contracts for the erection of new buildings, or the repairs of old ones, are made by the Inspector of Buildings,

and all payments on account of the same are made by that officer, with the approval of the Mayor.

It will thus be seen that the expenditures of this department are under a double supervision, and the Board is not entrusted with the exclusive control of everything pertaining to the public schools. Every possible protection is thus given to the appropriations made for the use of the schools, and every citizen can have the opportunity, as he has the right to ascertain exactly how the money is expended.

During the past year, a special effort was made to reduce the expenses of the schools to the minimum amount, and an examination of the items of general expenditures will show that there has been no wasteful outlay, but that the strictest economy has been practiced.

By the rules of the Board, all the necessary supplies, such as books, furniture, fuel, printing, etc., are furnished upon annual or special contracts, which are awarded to the lowest bidders. The old system of contracting for books, which had continued for many years, was found to be unfair and expensive, and in 1875 the present system was adopted, which is alike equitable to the Board and the contractors. A printed list of all the books and stationery in use, with the retail price of each book and ar ticle of stationery annexed, is furnished to all bidders, and they are required to state what rate of discount they will allow from the given prices, the same rate of discount to be allowed on each book on the list, and on any other book which may be introduced during the year.

This plan furnishes the same information to all bidders, and places them on an equality in making their estimates and bids, and has resulted in a considerable reduction from the prices heretofore charged. Under the contract awarded last year, a

discount was allowed at 45 per cent. for books and 55 per cent. for stationery.

In the purchase of furniture, fuel, and other supplies, the schools secure every possible and proper benefit which can result from fair and honorable competition among those who are seeking the contracts.

ESTIMATES FOR 1878.

Salaries of Teachers and Officers	$450,000
Books and Stationery	40,000
Rents and Ground Rents	30,000
School Furniture	12,000
Fuel	18,000
Heating Apparatus and Repairs	10,000
Printing, Supplies, and Incidentals	10,000
Repairs of Furniture and Cleaning of Buildings, &c.	8,000
Evening Schools	6,000
Colored Schools	60,000
	$644,000

The above estimate has been made by the Committee on Accounts, after a careful consideration of the wants of the schools during the present year, and is submitted with the hope that the necessary appropriations will be made. It is in excess of the expenditures of the past year, in view of the fact that there will be an increase in the number of pupils and teachers, which will involve additional expense. We should deal justly and honestly with our patrons and pupils, and this cannot be done unless the necessary means are furnished to properly equip and conduct the schools. We urge our citizens to co operate with us in this work of free education; and we

ought to make ample provision for the accommodation and instruction of their children, by the erection of comfortable buildings, the appointment of good teachers, and the necessary supply of books, furniture, and the other requirements of school life. It is a serious mistake to conduct a system of public education upon parsimonious principles. A judicious and liberal appropriation and expenditure will secure the best results.

We entertain the same views upon this subject which have heretofore been submitted: that those who have the special control of any department of the City Government, know what its real wants are, much better than those who have no personal knowledge of its requirements; and it is, therefore, the true policy of the city to make the estimated appropriation, and hold those in charge of the department responsible for its proper disbursement. The ordinance applicable to all departments prevents the contracting of any debt beyond the appropriation, and if the entire amount given for the support of the schools is not required, the Board will certainly not use more than is needed.

SCHOOL BUILDINGS.

During the past year three new buildings have been erected, and are now occupied by the following schools: One on Division street, by Male and Female Grammar Schools No. 6; another on Warner street, by Male and Female Grammar Schools No. 12; and the other at the corner of Harford avenue and Chew street, by Male and Female Primary Schools No. 16. These houses are commodious and well lighted and ventilated, and will furnish seats for about two thousand pupils.

Additions have been made to the buildings occupied by Male and Female Grammar Schools No. 10, at the corner of William

and Warren streets, and by Male and Female Primary Schools No. 15, on Carrollton avenue; and alterations were made to the old building occupied by Male and Female Grammar Schools No. 2, at the corner of Broadway and Bank street, thereby furnishing increased comforts and additional facilities which were much needed.

The total amount expended by the Inspector of Buildings on account of new houses, and the alteration and repairs of old ones, was $102,523.26, of which amount $19,441.49 was for general repairs of old buildings.

The number of school buildings owned by the city is 56, and the number rented by the Board is 6, making a total of 62 occupied by the schools.

The Board regrets the necessity for using any rented buildings as they are generally the basement of churches or old dwellings or public halls, which are entirely unsuited for school use. The rent usually paid is more than the interest on an amount which would erect a suitable school-house, and it would be judicious economy on the part of the city, as soon as practicable, to make the necessary appropriations to construct all the houses that are necessary for the schools.

The houses now in use are generally two stories high, which are deemed better for the health of the teachers and children, and easier for rapid escape in case of panic from fire or other causes. In this respect they are different from the school houses in other cities, which are generally three or four stories in height, and accommodate a larger number of children than ours.

There seems to be some progress made from time to time in the character of the buildings erected, but school architects

have not yet designed the perfect model for school use. Some of our buildings are a great improvement on those constructed years ago, and are as well lighted and ventilated as circumstances would permit, and yet they do not combine those elements of convenience and health and safety which we hope may be secured in the future houses for our schools.

The lots are generally leased by the city for ninety-nine years, in the usual form of such leases, upon annual ground rents which are permanent and irredeemable; and the rents thus charged against the schools have increased from year to year, until they have now nearly reached the annual sum of $30,000, which must be appropriated for that purpose. There are several instances in which some of these rents continue to be improperly charged against this department, as the lots and property have long ago been surrendered to the city, and are used for other purposes.

It may be a matter worthy of your consideration whether some other plan may not be adopted, by which all school lots might be purchased in fee simple, and the city thus be relieved of annual appropriation for the payment of the rents.

Although much has been done during the past few years for the benefit of our schools, by the erection of new buildings and the enlargement and repairs of old ones, there is yet much more which ought to be done, in this respect, for the comfort and health of our teachers and pupils. In some cases, this can only be effectually done by the erection of new buildings, whilst in others the object may be accomplished by alterations and enlargement of the present houses.

An examination of all the school buildings was recently made by the Inspector of Buildings, at the request of the

Mayor, with a view to ascertain their general condition, and his report will show what is needed. The necessary repairs and alterations will require a considerable expenditure, and it is for you to decide whether it is better to appropriate the amount to remove the existing evils or to permit them to continue.

In view of these facts, it is our duty to present a statement of the condition of several buildings, with the hope that such liberal appropriations may be made as will meet the existing wants:

MALE GRAMMAR AND PRIMARY SCHOOLS No. 1.

In our last report, we asked your attention to the building occupied by these schools, and for an appropriation for the erection of a new house. The Committee on Education examined the premises, and agreed that they were unsuited for school use; but, in view of the large appropriations which had already been made for new buildings in other parts of the city, they recommended delay until this year. The house at the north-east corner of Fayette and Green streets is the oldest public school building in the city, having been erected in 1832, at a cost of $5,000. The lot is 64 feet on Green street, with a depth of 104 feet on Fayette street, and is subject to an annual ground rent of $204. The adjoining lot and dwelling on Green street were purchased by the city several years ago, for the purpose of obtaining additional ground for the use of the schools and the erection of a new building.

There is not sufficient space, light or ventilation for the number of pupils attending these schools, and no alteration of the present building will afford the necessary relief; and we

therefore urge a liberal appropriation for the erection of a new building, either upon the present site or elsewhere, as may be deemed most expedient.

GRAMMAR AND PRIMARY SCHOOLS No. 20.

The building occupied by these schools is at the corner of John and Eden streets, and is now crowded beyond comfort. The building has already been enlarged to meet the existing necessity for more room, and it is now again necessary to make an addition. These schools are under the charge of experienced teachers, and their usefulness ought not to be impaired by refusing to furnish them the necessary facilities for their work. An appropriation of $6,000 will enable the Inspector of Buildings to add four more rooms to the house, which will accommodate 200 pupils, and meet the present demand.

FEMALE GRAMMAR SCHOOL No. 16.

This school occupies a rented building at Locust Point, under very disadvantageous circumstances. It contains only two rooms, and is not adapted to school uses. If a suitable house was erected at this point, the school would rapidly increase in numbers, and prove a great benefit to the residents of that section of the city.

We estimate that $5,000 would be sufficient to erect a comfortable house adapted to the wants of the neighborhood, and hope that the necessary appropriation will be made for that purpose.

ENGLISH-GERMAN SCHOOLS No. 2 AND No. 3.

These schools also occupy rented houses which are insufficient in size to accommodate the large number of pupils in attendance. They are three stories high, with a single stair-

way for ingress and egress, and the class-rooms are small and without proper light or ventilation. These great inconveniences, which can only be fully appreciated by those who suffer from them, must seriously retard the progress and success of the schools.

This department of our school system is performing its work most satisfactorily, and if it is to be continued successfully in the future, it should have equal facilities with the other schools. The rent now paid for these houses is equal to the interest on a sum which would be sufficient to erect two new and commodious buildings for these schools. We solicit your early attention to this pressing want, and ask that the necessary appropriation be made for the erection of both houses during this year.

There are other school houses besides those above mentioned which are unsuited for school use, and which ought at once to be replaced by new buildings, or so altered and enlarged as to furnish proper accommodations. The health of our teachers and pupils ought not to be sacrificed to the plea of economy.

We have presented this subject from time to time from a sense of duty, and must continue to do so in the future until the object is accomplished.

With a view to furnish you full and accurate information with reference to the general condition of the property now under the charge of the Board, we would ask that it be thoroughly inspected by your Committee of Education, so that you may know the extent of our real wants, and thus be enabled to furnish proper relief.

OFFICERS AND TEACHERS AND THEIR SALARIES.

We submit with this report a full schedule of the salaries of the officers and teachers connected with our public schools.

By the ordinances of the city, the Board of Commissioners is authorized to appoint a Superintendent of Public Instruction and an Assistant Superintendent, who shall be residents of the city, and who shall serve for four years, unless sooner removed.

They are required to devote their time and attention entirely to the general supervision of the schools, subject to such rules as may be adopted for their government.

The other officers of the Board are a Secretary, Messenger and Librarian, who perform many duties which are necessarily incident to the proper management of the schools, and whose services are valuable and necessary.

The Board is empowered by law to fix the salaries of the Superintendent and Secretary, subject to the approval of the two branches of the City Council, and also the salaries of the Assistant Superintendent and teachers, subject to the approval of the Mayor and City Council. We know of no reason why there should be this difference in the mode of approval, and presume it is rather the result of accident than design.

In 1869 the salary of the Superintendent was fixed at $2,500 per annum, and that of the Secretary at $1,700 per annum, and approved by the City Council; and subsequently, in 1873, the former was raised to $3,000 per annum, and the latter to $2,000 per annum, and have been paid at the increased rates, since that time, until recently, when the Mayor refused to authorize the payment of the increase, because it had not been formally approved by the City Council. This refusal was a surprise to the Board, in view of the fact that no objection had ever previously been made to the payment of these salaries. It was the distinct recollection and belief of the Secretary that the increase had been reported to the City Council in 1873, and the presumption was that it had been approved at

that time, as the increased amount had been paid by the City Comptroller.

If it was not then reported for approval, it was an unintentional omission on the part of the Board then in charge of the schools, and certainly not with any purpose to avoid a duty or violate the law.

The salary of the Assistant Superintendent was fixed at $1,800 per annum in 1872, at the time the office was created by ordinance, and was then reported to the Mayor and City Council, and has not been changed since that time.

A similar objection has been made to the payment of the increased salaries of several teachers who are designated in the schedule.

In 1870 the Board adopted a schedule of salaries, which was submitted to the Mayor and City Council, and formally approved. Since that time the following increase has been made:

Vice-Principal of Baltimore City College, 1870	$2,200
Increase	250
Brof. of Writing and Book-Keeping in Baltimore City College, 1870	1,800
Increase	200
Principals of Colored Schools, 1870	900
Increase	100
Teachers of Alphabet Classes, Primary Schools, 1870	468
Increase	36

By reason of the increase of pupils in the College, and the introduction of drawing in the schools, the following new grades have been established, with the salaries annexed:

Prof. of Drawing in Baltimore City College, and Superintendent of Drawing in all the Schools	$1,800
Five Teachers of Drawing, each	500
Adjunct Professor of Natural Science, Baltimore City College	1,200
Two Tutors in Baltimore City College, each	1,000

The total amount of increase of salaries and new grades is about $13,000 per annum.

The above increase of salaries and a list of the new grades were reported to the Mayor and City Council in 1876, and the necessary appropriation was made for the payment of the same, and thus the action of the Board was practically, if not formally, approved.

In view of the misunderstanding which has arisen with reference to this subject, we deem it proper to present this statement of the circumstances under which the increase was made and paid. The Board acted with good faith, and supposed it had done all that was necessary in compliance with the existing law. As it is the opinion of the Mayor, however, that the reported increase of salaries should be approved by a formal resolution of your Honorable Body, we ask that such action will be taken, so that his objections may be removed.

It can hardly be necessary to submit any argument to prove the justice of this request. A simple statement of the fact, that the salaries of the officers and teachers of our public schools are less than those of any other city in the country, ought to be sufficient to induce the desired action.

PUBLIC SCHOOL LIBRARY.

The Library for the use of the teachers and pupils of the schools was established two years ago, and an annual appropriation of $1,500 has been made for the purchase of books. This amount has been expended under the direction of the Committee on Books, which has been assisted by the Superintendent in the selection of valuable works adapted to the wants of those for whom they are intended. Our purpose in establishing this free library was to increase the efficiency of our teachers and the progress of our pupils, by furnishing them the facilities for educational and general reading.

Free libraries in connection with the public schools exist in all the principal cities, and it was eminently proper that our teachers should have the same opportunities for mental culture that others have elsewhere.

The State recognizes the value of such educational assistants, by directing the County School Boards to make annual appropriations from the School Fund for the support of free libraries for the use of teachers and scholars in every school district, and the City should grant the same facilities to its teachers and pupils. There can be no doubt about the value and importance of such aids to our public schools, and we are satisfied that our action in this matter will meet your cordial approval.

During the past year, in consequence of the increase in the number of books and their frequent use by the teachers, it was thought best to appoint a Librarian, and Prof. N. H. Thayer was appointed to the position, who performs its duties in addition to those pertaining to his Professorship in Baltimore City College.

We desire to increase the library from time to time, and, if the appropriation for the current year will justify us in doing so, we will apply a portion of it for the purchase of additional books.

NORMAL CLASS.

The report of the Principal of this class furnishes gratifying evidence of its progress and success during the past year. The number of pupils is more than double that of the preceding year, and indicates an increasing interest and desire on the part of those who expect to become teachers in our schools, to prepare themselves for their future work. The sessions of the class are held weekly, and are under the charge of one of the most experienced and successful Principals of Grammar Schools, assisted by a corps of competent teachers. Instruction is given in the theory and practice of teaching, and the object is to improve the qualification of our teachers and the character of their work. By the rules of the Board, the graduates of the Female High Schools, and all others who may be selected to teach in the public schools of the grade of second assistant, are required to attend this class for the period of six months, and thus have the opportunity of preparatory training for the duties of their profession.

It is undoubtedly true that the success of any system of public instruction depends, in a great degree, upon the capacity of the teachers to whom it is entrusted. If they are cultured and possess the power of properly imparting knowledge, and unite with these necessary qualities energy and earnest effort, they will generally succeeed; but if, on the contrary, they are deficient in these essential qualifications, they will certainly fail in their work. It is not sufficient for the teacher to have

knowledge, but he must also have the power of imparting it to his pupils. Thorough preparatory training is a most valuable aid in the practice of any profession, but especially in that of the teacher. Much good may be done by one qualified for his work, but much injury will result if he is deficient.

It is obviously our duty to protect our schools from the evils which must follow the imperfect work of the young and inexperienced teacher, and there is no way in which this object can be more certainly accomplished than by requiring all candidates for appointment to secure the benefit of normal instruction.

This class can aid in the work, but its time is too limited to accomplish fully and successfully the desired object; and the Principal finds that this is the chief obstacle to greater success. There can be no doubt but that it would be of great advantage to the teachers and the schools to establish a Normal School in connection with the Female High Schools, or as a distinct department, with a proper training school; and it is probable that during the year we will submit for your approval a plan for the organization of such a school.

NON-RESIDENT PUPILS.

By an ordinance adopted in June, 1874, the Board of Commissioners was directed to make the following charges for the admission of the children of non-resident parents or guardians into the public schools of Baltimore, viz.: To Baltimore City College, $50.00 per annum; to Female High Schools, $32.00 per annum; to Grammar Schools, $16.00 per annum; to Primary Schools, $12.00 per annum; the same to be paid quarterly, in advance.

The necessity for this ordinance arose from the fact that a considerable number of children of non-resident parents or guardians were receiving their education in our schools at the expense of the city, and by its operation all such persons are excluded, except upon the terms mentioned.

There are some persons residing in the counties who find fault with the ordinance in its application to themselves, because they are large tax-payers, and transact their business and own property in the city. They claim that, as they are taxed for the support of the public schools, they ought to be permitted to send their children to them upon the same terms as others, and not be compelled to pay a large additional sum because they prefer to reside in the counties. Most of them, however, whilst protesting against the law as unjust and oppressive, still send their children to the schools, at the same time expressing the hope that there may be such modification of the ordinance hereafter as will relieve them from this extra tax. The number of non-resident pupils is 233, and the amount received from them during the past year was $2,781.

OUR SYSTEM AND ITS WORK.

It would be a difficult task to undertake to reconcile the conflicting opinions which exist in every community with reference to public education. Every school system has its friends and its enemies; the former often so enthusiastic and earnest as to be blind to its faults, and the latter so ignorant and prejudiced as to be unable or unwilling to understand or admit its value. The true mean between these extremes is the person who possesses the necessary knowledge to understand the great importance of education to the community, and to distinguish intelligently between what is good and what

is bad. The judicious and discriminating criticism of such would promote the interest of true education, and be beneficial to those who are engaged in the work, by assisting them to remove existing evils. But unfortunately, this is not the kind of criticism which is most frequently received by the schools. In every community there are many persons who are not practical educators, and have not even a theoretical knowledge of teaching, and yet who are entirely satisfied that they could manage a system of public instruction much better than those to whom it is confided. This is the superficial class of critics who so often interfere with the public schools, and sometimes impede their progress and success. There are some of these who protest against the amount of work required of the pupils, whilst others think that there is not sufficient; some who insist that the teachers ought to accomplish a great deal more than they do, and are overpaid for their services, whilst others believe that they are overtasked and inadequately compensated. Again, there are some who think that public schools give too much education, and that the cost is too great, whilst others feel that no system of public instruction is complete that does not furnish all that is required from the lowest to the highest grade, and that the most liberal expenditure is justifiable for this purpose.

These conflicting views exist to some extent in our city in the same manner as elsewhere, and yet it must be said, to the credit of our citizens, that at no time in the history of our schools has there ever been manifested any open opposition which has seriously interrupted their growth. Sharp and unjust criticism has sometimes created ill feeling and suspicion, and real enmity, under the guise of professed friendship, has shown its hostility to our system and its management; but honest investigation has always removed all doubts, and public

sentiment has expressed its confidence. Indeed, there is no other department of our municipal government which has received more liberal attention from those in authority, and none is more fully appreciated and carefully fostered by the people.

We construe this confidence to be an indorsement of the policy adopted by those who have had the control of our schools, and there can be no necessity for a change, unless public sentiment demands it in the future.

It is the duty of those in charge of every public school system to so enlarge and liberalize its scope of instruction as to embrace every grade, from the primary to the collegiate, so far as may be necessary to meet the wants of the community in which it exists. The public schools of this country are not now what they once were. It is sometimes alleged that the original purpose of free schools was to provide only rudimentary education for the poor and illiterate class of society. We do not believe that such were the views and purpose of the founders of our system; but, if they were, public sentiment has changed, and now repudiates such narrow and illiberal notions. It is the experience and testimony of the most eminent educators, and especially of those who have supervised the public school systems of this and other countries, that liberal provision for higher education is essential as a means of securing the success of elementary instruction.

Our duty is to furnish such education as will fit the pupils of our schools to perform successfully their obligations to society, in whatever sphere they may be called to act. Anything less than this would be only a half performance of our work. Every department of useful knowledge should be accessible to the children of the poor as well as the rich, so that in the race of life they may have equal advantages with their more favored

competitors. Such a system will produce the best results. Elementary education alone is not always sufficient for this purpose. It may be true that the instruction received in the lower grades of our schools is all that is required for the business purposes or the personal welfare of a majority of the pupils; and if that is all that is desired by them, let such receive what satisfies their wants; but if there are others who have higher aspirations, and wish to acquire greater knowledge to fit them for a different sphere of labor in the future, they too should be gratified in their demand. Our schools are made up from every class in society, with various wants and different purposes. Let the whole community be gratified in its educational desire, each one according to his preference, and then there can be no just cause for complaint of unfair discrimination in favor of one class over another. If liberal views are instilled into the minds of the young, they will retain them in manhood and exhibit like liberality to others. The value and truth of this principle have been exemplified in this community, in which some of our most useful, accomplished and public-spirited citizens have been pupils of our public schools, and who now show their appreciation of them by cordially co-operating in every effort to promote the cause of free instruction. We wish that all had the same information, with reference to our schools and their work, as those who have thus learned their value and know their practical results. It would tend to remove the ignorance and prejudice which control some persons whose good-will and co-operation would aid the cause of public education in our city.

A review of the work of the past year furnishes satisfactory evidence of progress and improvement.

The Superintendent and Assistant Superintendent have rendered valuable services, and contributed much to this success,

by their frequent visits to the schools and their careful and instructive examination of the classes; the teachers have generally performed their laborious duties with fidelity and zeal; the pupils have increased in number and improved in diligence and deportment; additional facilities have been furnished by the erection and enlargement of school buildings; the expenditures have been moderate, and within the appropriation made for their support; and thus, all engaged in the work have harmoniously co-operated to produce these results.

Whilst all may not have been accomplished that was desired, yet much has been done, and such substantial progress has been made as will commend the schools to public confidence and support.

The system which was once weak is now strong. Its growth has been regular, keeping pace with other important public interests. Each successive year witnesses some advancement. It has been controlled by a spirit of judicious conservatism, which holds on to what is good of the past and strives for improvement in the future.

Every class in the community is entitled to come into the schools and receive a share of the instruction so liberally furnished. They are open to all, without distinction of race, religion, or party. They have thus met the approbation of all and secured public sympathy, because free from the baneful results of sectarian or partisan influence. Their future success will depend upon their proper support and management. Nothing could be more disastrous than the introduction of an illiberal spirit by those who may have their control. It is the duty of every citizen to discourage the efforts of politicians or others to make the public schools subservient to partisan purposes. This serious evil may be averted by placing them in the care of intelligent, liberal, sincere friends of public educa-

tion, who will exclude everything that may impede their progress, and do all in their power to promote their interest and success.

The report of the next year will record the existence and history of the schools for half a century, and it will be an appropriate time to review the work for that period; and we feel sure that our community will then find no cause to regret the confidence bestowed on the money expended upon the system of public education which its founders declared to be for "the honor, the happiness, and the interest of the city."

JOHN T. MORRIS,

President.

REPORT

OF THE

COMMITTEE ON ACCOUNTS,

TO THE

Board of Commissioners of Public Schools.

The Committee on Accounts report that they have carefully examined the accounts of the Secretary of the Board, and find them correct.

The Secretary has received from the several schools of all grades, during the fiscal year ending October 31, 1877, $49,457.32, and during the months of November and December he received $9,187.17, making a total of 58,644.49 for fourteen months ending December 31, 1877, all of which has been duly returned to the Register, as shown by the receipts of that officer.

G. S. GRIFFITH, JR.,

Chairman Committee on Accounts.

TABLES.

Showing Amount Received from the several Schools for the Use of Books, and also the Amount of Expenditures for the various Schools, for Twelve Months ending October 31, 1877.

Schools.	Paid Salaries.	Paid for Repairs and Cleaning.	Paid for Books and Stationery	Paid Rents and Ground Rents.	Paid for Heating Apparatus and its Repairs.	Paid for Furniture.	Paid for Fuel.	Paid for Printing and Incidentals.	Total.	Received for Use of Books.
General Expense.....	$16,220 00	$681 62	1,252 37	2,509 25	$268 31	$701 89	.....	5,463 61	$27,097 05	.....
Baltimore City College..	25,913 50	33 61	1,432 02	3,600 00	56 15	245 14	520 20	1,011 15	32,811 77	2,006 11
East. Fem. High School	11,976 00	52 35	667 56	811 37	101 19	93 83	346 80	341 30	14,390 40	959 00
West. " " "	12,912 00	50 25	995 77	1,188 00	224 36	41 50	367 65	277 11	16,056 64	1,479 00
Male Grammar No. 1.	5,064 00	29 00	516 36	177 00	68 00	468 20	61 13	20 25	6,403 94	856 00
" " " 2.	5,490 00	58 35	824 61	122 22	113 59	12 00	135 12	152 75	6,908 64	696 00
" " " 3.	4,100 00	.....	246 97	234 00	32 50	28 08	100 90	34 92	4,777 37	411 00
" " " 4.	4,433 25	109 91	265 08	300 00	63 57	14 40	93 50	9 00	5,288 71	486 75
" " " 5	3,155 25	7 50	328 45	300 00	105 25	3 70	82 35	32 35	4,014 85	113 00
" " " 6.	5,189 75	31 25	298 87	75 00	486 62	1,268 85	160 40	11 00	7,521 74	1,323 50
" " " 7.	2,350 75	53 75	255 24	.....	15 21	429 66	46 43	5 00	3,156 04	170 00
" " " 8.	4,580 75	41 68	408 34	437 50	270 25	1,258 00	264 10	51 90	7,312 52	474 00
" " " 9.	3,915 25	35 84	238 45	.....	101 12	54 15	87 90	30 95	4,463 66	500 50
" " " 10.	4,496 50	56 70	496 32	87 50	196 09	235 68	100 75	66 35	5,735 89	245 30
" " " 11.	4,483 25	54 58	316 93	.....	51 05	.....	128 50	9 90	5,044 21	330 00
" " " 12.	4,275 25	42 91	523 74	150 00	553 64	27 65	17 53	6 00	5,596 72	276 00
" " " 13.	4,348 50	20 55	323 65	12 50	140 45	22 50	102 60	.....	4,970 75	496 15
" " " 15.	5,793 00	57 10	728 69	200 00	80 25	10 30	121 25	23 28	7,013 87	1,061 50
" " " 17.	3,838 00	98 25	308 94	186 00	56 63	7 00	99 85	25 25	4,619 92	490 39
" " " 18.	4,117 00	33 25	228 16	175 34	77 83	37 45	110 55	8 50	4,788 08	436 00
" " " 19.	3,315 00	56 87	455 00	137 31	40 92	47 76	80 00	29 00	4,161 86	515 00

Male Grammar No. 20.	4,012 75	12 65	541 59	120 00	55 82	32 00	88 85	5 00	4,868 66	224 00
" " " 21.	3,956 50	13 50	371 73	310 00	16 10	1,395 05	286 03	137 58	6,486 49	646 60
English-German No. 1.	7,360 05	40 00	549 98	1,330 00	66 72	50 00	211 05	3 00	9,610 80	1,216 50
" " " 2.	7,986 25	58 62	617 56	1,083 50	238 81	....	176 68	4 48	10,165 90	1,980 00
" " " 3.	9,845 15	141 98	634 06	1,000 00	77 14	36 21	115 43	15 00	11,864 97	2 824 02
" " " 4.	7,142 20	66 97	772 99	130 00	157 13	26 48	116 35	12 50	8,424 62	1,510 50
" " " 5.	9,218 10	59 75	851 08	.....	116 00	50 70	233 15	16 50	10,545 28	1,749 00
Saturday Normal Class	825 00	.....	64 89	.....	.....	....	.....	.....	889 89	.....
Female Grammar No. 1	5,656 00	1 90	512 44	724 88	136 45	3 30	367 75	18 30	7,421 02	1,359 00
" " " 2	4,130 25	44 30	552 11	122 22	81 19	1 50	120 90	157 84	5,210 31	403 00
" " " 3	3,324 00	2 25	438 55	234 00	38 17	49 88	99 80	5 50	4,192 15	416 50
" " " 4	3,474 35	94 02	317 15	300 00	62 54	143 85	93 60	1 87	4,487 38	453 00
" " " 5	2,970 25	16 25	370 80	300 00	110 50	.....	81 70	44 73	3,894 23	217 50
" " " 6	3,150 75	34 16	222 75	75 00	434 07	896 71	135 90	10 00	4,959 34	587 75
" " " 8	3,652 00	28 13	477 16	437 50	281 06	1,257 60	262 50	47 65	6,443 60	533 25
" " " 9	2,661 00	49 76	281 29	.....	59 08	37 46	82 55	38 03	3,209 17	242 50
" " " 10	3,636 75	55 85	225 63	87 50	218 69	338 13	107 25	57 76	4,727 56	335 65
" " " 11	3,476 00	39 18	311 34	....	68 92	.....	128 55	13 15	4,037 14	292 75
" " " 12	3,030 00	52 27	301 20	150 00	552 93	44 50	26 60	.....	4,157 50	242 00
" " " 13	4,455 00	36 34	471 56	12 50	149 42	179 87	96 10	7 08	5,407 87	776 00
" " " 15	3,753 75	29 85	294 69	200 00	64 20	6 25	115 00	17 25	4,480 99	731 00
" " " 16	1,685 50	36 45	100 52	225 00	19 24	5 50	34 68	.....	2,106 89	72 66
" " " 17	3,751 25	83 50	332 23	186 00	56 79	117 98	93 35	9 50	4,630 60	605 00
" " " 18	3,683 50	34 79	323 50	175 34	99 77	118 75	110 55	6 00	4,552 20	532 50
" " " 19	2,657 75	57 57	189 68	137 23	50 52	27 70	73 80	20 40	3,214 65	551 00
" " " 20	3,683 75	17 85	453 99	120 00	78 34	32 70	81 70	20 25	4,488 58	241 00
" " " 21	3,480 25	18 25	707 72	310 00	15 00	1,392 11	269 65	124 55	6,317 53	791 00
Male Primary No. 1...	5,113 25	34 09	281 02	139 50	68 56	24 83	103 03	5 75	5,770 03	903 50
" " " 2...	2,262 25	5 12	149 51	125 00	30 31	.....	96 70	5 00	2,673 89	104 49
" " " 3...	2,790 00	26 75	204 44	225 00	32 50	81 84	99 80	9 50	3,469 83	236 75
" " " 4...	3,439 00	63 61	110 42	105 00	79 30	379 90	100 90	7 00	4,285 13	397 25
" " " 5...	4,138 25	41 00	224 59	300 00	299 38	49 10	184 92	48 52	5,285 76	104 50

TABLES—(Continued.)

Schools.	Paid Salaries.	Paid for Repairs and Cleaning.	Paid for Books and Stationery	Paid Rents and Ground Rents.	Paid for Heating Apparatus and its Repairs.	Paid for Furniture.	Paid for Fuel.	Paid for Printing and Incidentals.	Total.	Received for Use of Books.
Male Primary No. 6...	3,159 50	65 25	123 10	46 88	58 23	29 20	145 80	66 97	3,694 93	354 55
" " " 7...	2,632 25	17 50	102 78	.....	20 00	11 58	71 70	17 67	2.873 48	266 75
" " " 8...	2,703 00	34 77	95 38	85 50	47 17	10 00	60 70	1 25	3,037 77	180 50
" " " 9...	2,156 00	21 35	114 59	.....	39 85	81 10	93 40	18 67	2,524 96	115 75
" " " 10...	3,170 25	31 25	85 81	100 00	55 86	76 00	60 25	... .	3,579 42	131 75
" " " 11...	2,734 75	39 58	101 19	90 00	54 75	219 78	82 90	12 00	3,342 95	164 45
" " " 12...	3,325 50	28 08	146 23	134 00	69 56	285 18	93 00	14 35	4,095 90	247 25
" " " 13...	3,139 75	49 75	171 34	150 00	36 50	.....	104 80	6 65	3,658 79	113 50
" " " 14...	3,176 50	103 44	233 37	100 00	130 27	56 55	119 80	29 40	3,949 33	548 00
" " " 15...	4,075 50	7 95	187 48	350 00	189 86	337 10	122 05	29 20	5,299 14	660 50
" " " 16...	2,888 50	18 50	159 30	198 00	489 20	1,154 66	206 40	95 29	5,209 85	129 25
" " " 17...	4,009 50	40 32	116 36	108 50	43 27	17 15	134 70	5 25	4,475 05	191 50
" " " 18...	2,223 00	66 37	129 96	97 50	49 21	295 70	72 20	....	2,933 94	423 00
" " " 19...	2,167 75	42 09	105 92	137 23	42 06	40 39	73 80	40 62	2,649 86	197 00
" " " 20...	3,860 25	27 80	188 70	120 00	45 15	21 50	104 80	20 50	4,388 70	290 50
" " " 21...	2,783 50	59 00	162 61	160 00	53 39	9 00	91 30	.....	3,318 80	337 92
" " " 22...	3,213 25	60 74	149 46	88 75	57 54	245 00	108 07	8 50	3.931 31	83 75
" " " 23...	3,136 50	111 50	224 65	75 00	50 59	38 27	74 60	26 25	3.737 36	397 71
" " " 25...	2,193 00	53 07	110 49	67 00	67 69	.....	67 30	. ...	2,558 55	111 99
" " " 26...	2,676 00	54 50	80 64	63 00	30 00	129 25	92 20	31 78	3,157 37	254 88
" " " 27...	2,660 00	51 70	73 38	137 50	.....	86 40	105 15	13 65	3,127 78	346 34
" " " 28...	3,181 50	38 16	134 44	202 50	40 68	267 70	102 70	37 82	4,005 50	72 20
" " " 29...	2,229 00	55 06	49 04	96 00	45 52	8 40	29 15	6 75	2.518 92	80 50
" " " 30...	3,080 50	49 45	162 90	468 75	41 75	119 00	98 90	18 00	4,039 25	366 45

Female Primary No. 1	6,021 75	5 00	141 38	547 36	90 00	15 00	362 00	7 50	7,189 99	1,290 94
" " " 2	2,262 75	1 00	195 01	125 00	27 26	.....	96 15	5 50	2,712 67	97 00
" " " 3	2,790 00	11 26	67 43	225 00	32 50	63 42	94 00	11 75	3 295 36	319 75
" " " 4	3,078 00	56 51	107 70	105 00	68 00	25 90	96 30	.....	3,537 41	365 00
" " " 5	4,120 75	39 75	175 06	300 00	298 00	50 00	187 30	18 00	5, 88 86	148 50
" " " 6	3,214 50	57 84	116 69	45 00	60 80	11 00	133 45	81 80	3,721 08	271 99
" " " 7	2,416 75	9 50	79 58	.....	79 03	18 50	71 40	16 42	2.691 18	159 45
" " " 8	2,223 00	22 85	80 46	85 56	40 12	10 00	61 45	.....	2,523 38	178 00
" " " 9	3,066 50	39 75	137 70	.....	48 51	14 00	94 25	2 75	3,403 46	244 75
" " " 10	2,719 25	69 04	114 37	100 00	48 58	91 90	79 00	6 50	3,228 64	244 75
" " " 11	2,742 75	22 25	151 87	90 00	39 17	340 90	71 70	.....	3,458 64	161 85
" " " 12	3,834 50	35 66	296 08	134 00	46 42	354 80	97 70	....	4,799 16	201 30
" " " 13	2,635 75	46 50	126 23	150 00	34 95	23 20	104 80	11 50	3,132 93	168 00
" " " 14	2,125 25	51 92	92 18	100 00	25 71	.....	123 00	8 00	2,526 06	319 50
" " " 15	3,922 75	6 00	204 70	350 00	160 06	223 00	115 05	24 50	5.006 06	625 75
" " " 16	2,775 50	25 00	147 71	558 00	487 50	1,152 66	200 55	96 55	5,443 47	106 75
" " " 17	3,792 00	23 02	72 30	108 50	41 24	17 15	173 15	13 85	4,241 21	217 80
" " " 18	2,188 25	27 50	84 45	97 50	41 91	46 13	72 95	....	2,558 69	451 75
" " " 19	2,118 50	50 18	53 48	137 23	30 17	.....	73 80	.....	2 463 36	139 00
" " " 20	3,689 25	26 20	100 24	120 00	51 00	16 00	87 55	20 31	4,110 55	390 75
" " " 21	2,616 25	24 90	159 63	160 00	38 51	8 70	85 15	.....	3,093 14	383 97
" " " 22	3 236 50	71 46	148 55	88 75	46 31	232 00	129 00	9 50	3,962 07	75 10
" " " 23	3,608 00	55 35	128 89	75 00	38 75	....	80 15	27 25	4,013 39	294 00
" " " 25	1,813 75	55 55	51 88	67 00	29 14	.....	90 30	9 95	2,117 57	73 32
" " " 26	2,740 50	38 28	55 73	63 00	30 48	115 75	86 62	36 02	3,166 38	239 25
" " " 27	3,489 45	62 70	99 42	137 50	59 62	96 40	99 35	19 70	4,064 14	473 84
" " " 28	3,221 00	30 45	91 54	202 50	41 67	234 00	117 55	41 75	3,980 46	121 35
" " " 29	1,775 25	38 80	52 58	96 00	42 87	.....	30 00	....	2.035 50	102 50
" " " 30	2,891 15	10 07	128 31	468 75	48 10	217 70	97 50	9 63	3,871 21	344 50
" " " 32	2,680 25	97 00	72 33	72 00	73 29	389 90	39 78	4 00	3,428 55	193 08
Evening No. 2.....	644 00	.....	46 84	.....	.....	....	.....	47 50	738 34	3 00
" " 3.....	446 00	.....	54 00	.....	.....	.....	.....	58 25	558 25	.....
" " 4.....	760 00	1 70	63 85	.....	.....	.....	.....	52 50	878 05	.....

TABLES—(Concluded.)

Schools.	Paid Salaries.	Paid for Repairs and Cleaning.	Paid for Books and Stationery	Paid Rents and Ground Rents.	Paid for Heating Apparatus and its Repairs.	Paid for Furniture.	Paid for Fuel.	Paid for Printing and Incidentals.	Total.	Received for Use of Books.
Grammar Colored No. 1	$3,747 50	$20 00	$431 98	$900 00	$30 19	$34 08	11 60	.....	$5,175 35	$99 00
Male Colored No. 1....	2,037 25	14 25	102 93	.....	23 00	33 15	47 80	3 75	2,262 13	24 00
" " " 2....	3,766 00	12 07	261 17	12 50	46 58	23 70	126 07	.....	4,248 09	29 00
" " " 3.....	3,677 50	42 32	156 58	60 00	51 58	6 00	127 10	.....	4,121 08	33 00
" " " 4.....	1,567 75	29 40	105 53	168 00	13 00	.....	33 18	.....	1,916 86	70 00
" " " 5.....	2,525 00	49 75	125 58	93 75	41 59	.....	122 48	.....	2,958 15	45 66
" " " 6.....	1,228 00	22 29	142 51	160 00	35 09	19 08	31 10	8 00	1,646 07	....
" " " 7.....	4,218 70	30 50	276 36	224 00	153 43	166 71	134 33	60 28	5,264 31	1 00
Female Colored No. 1..	1,769 75	18 00	189 17	.....	62 26	35 58	53 45	4 10	2,132 31	14 00
" " " 2..	3,630 50	8 22	185 84	12 50	45 43	8 78	109 08	.....	4,000 35	37 00
" " " 3.	3,592 00	33 83	168 69	60 00	50 00	.....	106 27	3 00	4,013 79	18 06
" " " 4..	2,648 20	62 15	83 72	462 00	33 38	113 43	51 88	....	3,454 76	11 00
Gen. Expense Colored..	1,242 00	45 50	.....	.....	.....	108 00	.....	102 00	1,497 50	.....
Evening Colored No. 1.	788 00	....	31 14	.....	.....	.....	.....	82 13	901 27	20 00
" " " 3.	994 00	.....	74 07	.....	.....	.....	.....	100 80	1,168 87	.. ..
" " " 5.	554 00	.....	42 60	....	.....	..... .	.....	39 00	635 60	4 75
" " " 7.	732 00	8 45	85 76	.....	.....	.....	.....	131 72	957 93	.....

Total for White Schools.....$551,662 71
Total for Colored Schools..... 46,354 42

SCHEDULE

OF

SALARIES OF OFFICERS AND TEACHERS

OF

PUBLIC SCHOOLS.

GENERAL EXPENSE ROLL.

Superintendent of Public Instruction*	$3,000
Assistant Superintendent	1,800
Secretary*	2,000
Librarian	1,000
Messenger, etc	416
Teachers of Music, each	1,200
Teachers of Drawing, each*	500

BALTIMORE CITY COLLEGE.

Principal	$2,700
Vice-Principal*	2,450
Professors (not otherwise specified)	2,000
Professor of Writing and Book-Keeping*	2,000
Professor of Drawing*	1,800
Adjunct Professor of English and Mathematics	1,800
Adjunct Professor of Natural Science*	1,200
Tutors, each*	1,000

FEMALE HIGH SCHOOLS.

Principals	$2,208
First Assistants	1,008
Second Assistants	900
Teachers of French and Drawing, each	900

MALE GRAMMAR SCHOOLS.

	1st Year.	2d Year.	3d Year.
Principals	$1,296	$1,404	$1,500
First Assistants (Male)	804	900	
First Assistants (Female)	588	672	
Second Assistants	456	516	
Third Assistants	444	504	

FEMALE GRAMMAR SCHOOLS.

	1st Year.	2d Year.
Principals	$804	$900
First Assistants	564	648
Second Assistants	444	504
Third Assistants	432	480

SATURDAY NORMAL CLASS.

Principal	$200
Assistants	150

MALE AND FEMALE PRIMARY SCHOOLS.

	1st Year.	2d Year.	3d Year.
Principals	$600	$696	
Assistants	408	432	$468
Teachers appointed especially for Alphabet Classes	504		

UNCLASSIFIED SCHOOLS.

Composed of Primary and Grammar Schools.

	1st Year.	2d Year.	3d Year.
Principals	$696	$780	$900
First Assistants	504	552	600

ENGLISH-GERMAN SCHOOLS.

	1st Year.	2d Year.	3d Year.
Principals	$1,296	$1,404	$1,500
Vice-Principals*	804	900	1,008
First Assistants (Male)	600		

Assistants, Grammar Grades, same as Third Assistants in Male Grammar Schools.

Assistants, Primary Grades, same as Assistants in Primary Schools.

Colored Grammar Schools, the same as the Male Grammar Schools.

COLORED (PRIMARY) SCHOOLS.

	1st Year.	2d Year.	3d Year.
Principals (Male)	$804	$900	
Principals (Female)	600	696	
Assistants (Male)	700		
Assistants (Female)	408	432	$468

Principals of Colored (Primary) Schools,* who have passed an intermediate examination, $1,000 per annum.

EVENING SCHOOLS.

Principals, $3 per night, for actual service.
Assistants, $2 per night, for actual service.

The Schedule of Salaries to be subject to the following conditions:

All below the grade of Second Assistant in Male and Female Grammar Schools to be graded as Third Assistants, the Board of School Commissioners to determine, at the annual election, the grade of each assistant; in case of failure to do so, the Senior Assistant to grade highest in all cases.

In Male and Female Grammar Schools not employing three Assistants, the lowest Assistant shall rank as Third Assistant, and so continue until there are three Assistants

*Fixed by the Board at the amounts named and reported to the City Council for approval.

employed in that school, excepting the First Assistant, who shall, in all cases, rank as First Assistant.

Teachers who may have served for *two full* years in any of the Public Schools of Baltimore, upon promotion to Grammar Schools, shall be entitled to the second year's salary of that grade to which they may be assigned, excepting that of Principal.

Teachers who may have been engaged in teaching for *three* years previous to their election, shall be entitled to the highest salary of that grade to which they may be assigned, (excepting that of Principals of Grammar Schools,) upon producing satisfactory evidence of that fact to the President of the Board.

Teachers elected during the month of September shall receive the full salaries for the months of July and August of the succeeding year; those elected in October shall receive nine-tenths of said salary; in November, eight-tenths, and so on to the close of the scholastic term.

SALARIES OF JANITORS, JANITRESSES AND FIREMEN.

Janitor and Fireman of Baltimore City College.....	$900 00
Firemen of Female High Schools, each.....	400 00
Janitresses of Female High Schools, each.....	300 00

Fireman and Engineer of No. 1 Female School, $20.00 per month.

Fireman and Engineer of No. 3 Grammar and Primary School, $20.00 per month.

Schools having three classes, Janitress shall receive $8.00 per month.

Schools having four classes, Janitress shall receive $9.00 per month.

Schools having five classes, Janitress shall receive $10.00 per month.

Schools having six classes, Janitress shall receive $10.50 per month, and increase 50 cents per month for each additional class.

In addition to the above they shall receive 50 cents per month for each fire required in stoves in the schools from October to April, inclusive, and $5.00 per month for attending each furnace.

REPORT

OF THE

Superintendent of Public Schools.

BALTIMORE, October 31, 1877.

To the Mayor and City Council, and the Board of Public School Commissioners of the City of Baltimore.

GENTLEMEN:

I submit the following report of the work of the Public Schools for the year ending with the date above named:

Date	1877.
Population	302,839
Enumeration, United States Census, 1870	77,737
Number of pupils in school during the year	45,942
Enrollment, October 31	33,946
Average attendance	27,779
Number of teachers	764
Number of pupils to a teacher on enrollment, exclusive of special teachers	45
Number of pupils to a teacher on average attendance	36

Percentage of enrollment on population	11.1
Percentage of average attendance on enrollment	81.8
Percentage of average attendance in Baltimore City College	89.
Percentage of average attendance in Eastern Female High School	89.
Percentage of average attendance in Western Female High School	89.
Percentage of average attendance in Male Grammar Schools	86.2
Percentage of average attendance in Female Grammar Schools	83.7
Percentage of average attendance in Male Primary Schools	83.2
Percentage of average attendance in Female Primary Schools	80.
Percentage of attendance in English German Schools	90.8
Percentage of attendance in Colored Schools	72.
School age	6–18
Number to a teacher on enrollment in High Schools	30
" " " Grammar "	43
" " " Primary "	47
Number to a teacher on average attendance in High Schools	27
Number to a teacher on average attendance in Grammar Schools	36
Number to a teacher on average attendance in Primary Schools	38
Number of Schools	129

FEMALE HIGH SCHOOLS.

The status of these schools remains for the most part unchanged, and there is consequently little need of any detailed report respecting their condition. I am convinced by experience that reforms and improvements are best effected without an enumeration of defects in schedules or curriculums, or extended recommendations of radical changes. Reforms must be gradual in order to accomplish the best results, and it is desirable, both in educational and municipal reforms, that they be conducted without demonstration and without the ostentatious heralding of the reformers. The teachers in these schools have labored with great fidelity during the past year, and in some instances with gratifying success. Mr. Wardenburg's admirable faculties of discipline and administration, together with his vigor and efficiency as a teacher, cannot fail to prove a decided advantage to the school over which he has been called to preside. The retiring principal, Mr. Thayer, carries with him the good wishes of all interested in the welfare of the school, for his continued usefulness and happiness in the new sphere of duty to which he has been assigned. The brevity of that portion of my report which relates to the Female High Schools will be accounted for by my determination to adhere to that line of action which commends itself to my judgment as best, *viz*: to bring directly to the attention of the committee whatever defects of administration, or of programmes of instruction, my visits to these schools may discover, instead of parading them upon the pages of an annual report. Educational literature is distasteful to the great majority even of enlightened mankind, and recommendations embodied in a report are apt to be regarded as perfunctory exercises, rarely read and still more rarely remembered.

BALTIMORE CITY COLLEGE.

The observations that I have just made in commenting upon the condition of the Female High Schools, apply with some modifications to the City College. There has been no essential change in the status of the College during the past year. The high scholarly character acquired and maintained by the pupils of this institution at the leading colleges and universities of the country, at Yale, University of Va., Harvard, Princeton, St. John's College, and our own Johns Hopkins University, is a convincing proof of the excellence of the instruction imparted by the teachers of the City College. That the school is free from defects or imperfections I do not mean to intimate, but I have so often and so earnestly commented upon them, that it seems almost a work of supererogation to do more than allude to them here. The most palpable of these is the subordinate position assigned to the study of the classical languages. No solution of this difficulty has thus far presented itself. It is but just, however, to the gentlemen in charge of this department, to say, that the results attained by them are fully commensurate with the amount of time assigned to their classes. The pupils receive an excellent foundation in the ancient tongues, as I can testify from repeated observation and examination of the classes, and are instructed in accordance with the most approved and scientific methods. I do not know of any similar institution in the country in which the general results are superior to those attained by the teachers of the City College.

GRAMMAR SCHOOLS.

The results of the examination for admission to the City College, and the Female High Schools, July, 1877, would

seem to indicate an improvement in the condition of the Grammar Schools during the past scholastic year.

The percentage of successful candidates at the City College examination was greater than ever before in the history of the institution, while at the Western High School, the result was almost as satisfactory. At the Eastern High School the results were much better than in July, 1876.

The questions proposed to the applicants were slightly less difficult than those assigned the preceding year. The difference perhaps was more in the method of presentation than in the comparative difficulty of the subjects. The most important modifications of the Grammar School curriculum during the past year, have been: 1st—The combination of Algebra and Algebra definitions into one subject, and the similar combination of Arithmetic and Arithmetic definitions; 2d—An increased attention to the practical study of composition. The lack of adequate expression is a prevalent defect in all grades of our schools. It can be overcome only by persistent training in synthetic exercises, commenced at the very beginning of a child's school career. Among the greatest intellectual transgressions of the English speaking races, (a transgression for which ages of culture only can atone) has been the ungrateful neglect of their peerless language and literature.

The separation of the definitions in Arithmetic and in Algebra, from the practical work, always seemed to me a departure from scientific method. It tends to create the impression that the definitions in Arithmetic, *e. g.* which are formal deductions from the actual properties and relations of numbers, constitute a science separate from the Arithmetic proper, in other words this bi-furcation of the subject presents arithmetical examples and arithmetical definitions as severed or unrelated sciences, whereas one cannot exist without the other, any more than the

abstract can exist without the concrete, or phenomena without substance. I retained the existing usage in deference to established custom, until I could study its practical effects in the workings of our schools, although I was convinced of its illogical character at an early period. A degree of respect however is due in all cases to the judgment of others, especially if their judgment does not coincide with our own. The mere difference of opinion on the part of those that have a *right* to an opinion, should always induce us to test by the severest logical scrutiny, the correctness of our own views. Especially is this process of introversions, this "trying of the spirits," essential in the sphere of educational legislation and administration.

In no sphere of intellectual effort, except in the province of theology, is the "sublime repression of one's self" so earnestly demanded, as in the domain of education.

It should be our constant effort to avoid precipitate and unconsidered changes in schedule and curriculums, and to endeavor by an enlightened moderation and conservatism to adapt existing resources to the accomplishment of the most beneficent results. We have among us a system of schools, whose potentialities are almost unlimited. They may be made a source of inestimable advantage to this community and this State, but they can never attain the full measure of their usefulness and their excellence, until a substantial improvement shall be effected in the mode by which our teachers are appointed. I am aware that excellent selections are not unfrequently made, and that commendable care and diligence are often exercised in ascertaining the capabilities of applicants or appointees. If it would not subject me to the charge of instituting insidious comparisons, I should be glad to specify some of the appointments made during the past year, that impress me as especially excellent. But these facts do not detract from the *general*

truth of my statement. The method of appointment of teachers, as well as the imperfect qualifications of quite a large proportion of the appointees, constitutes beyond comparison the weak point of our Public School system. The teacher's examination is an imperfect test, even of scholarly acquirements, and affords no means whatever of ascertaining the aptitude or the ability of the candidates to impart instruction. Yet from these untried and untrained applicants, about three-fourths of our appointments are made. A week or a month of disjointed substituting, is in many cases insufficient to test the endurance and the capacity of the beginner. It is true that in many instances, our novices, by dint of intelligence and energy, develop into successful teachers, but the ascent is toilsome and there are many that "come up through great tribulation." It is difficult, if not impossible, to estimate the pernicious consequences to classes and pupils of lack of adaptation and experience. Several plans have been proposed to remedy these evils, but none thus far has met with acceptance or approval. I do not deem it advisable to comment upon those proposed by myself, as I am unable to fortify them by any arguments stronger than those I have already adduced.

There are many interesting questions suggested by the frequent discussions during the past year, relating to the study of history. The subject is one to which I have devoted much thought and study, but as it will probably be revived in connection with the new History of Maryland, recently submitted to the consideration of the board, I deem it best not to anticipate my own line of argument, but to reserve it until the question shall be formally presented for discussion.

The teachers in the Grammar Schools have labored during the past year with praise-worthy zeal and faithfulness. I have been in almost daily contact with them, and it is with

unaffected pleasure that I record their constant and assiduous devotion to their arduous duties.

ENGLISH GERMAN SCHOOLS.

The Schools have not only maintained their popularity; they have increased in popular favor, as the statistical record attests. I have frequently examined the classes both in English and in German, generally with very fair results. There is no serious *internal* obstacle, that I am aware of, to retard their prosperity. The value of the German language, viewed from a philological, scientific, literary, or practical stand-point, is so well understood, that discussion of the subject, at this late day, may well be regarded as superfluous.

SATURDAY NORMAL CLASS.

The Saturday Normal Class was in great measure the creation of my honored predecessor, Mr. Creery, whose long experience in the schools of Baltimore, together with his sound judgment and practical wisdom, enabled him to see clearly the imperative necessity of *some* preparation for the profession of teaching. The inceasing numbers, as well as the increasing popularity of the class, are the best tribute to the vigorous and efficient administration of the Principal and his associates. I have observed with great pleasure their modes of instruction, and the appreciative interest of the ladies who compose the class. They seem to possess that happy combination of qualities in which my idea of the teacher is realized, for "gladly would they *learn*, and gladly teach."

PUBLIC SCHOOL LIBRARY.

The Public School Library now contains at least 2,000 vols.

Every department of knowledge is represented by the best treatises, and an admirable opportunity is offered to our teachers for general or special culture, of which many are availing themselves. The library contains an extensive collection of works on education, including Kiddle & Schem's valuable Cyclopedia, Matthew Arnold's Reports, the works of Horace Mann, Payne, Farrar, Fearon, Staunton, Rosencranz, Quick, and other writers in this department. If the requisite means are supplied, our library will soon compare favorably with any similar one in the country.

CONCLUSION.

There is an increasing appreciation of scholarly culture among a number of our teachers, a tendency that I have done everything in my power to cherish and to stimulate. The Association of Eastern Teachers was the creation of several of our lady teachers, whose devotion to the advancement of a pure and ennobling culture prove them worthy of special honor and regard. The Association has been so fortunate as to secure the services of Mr. Maupin as instructor in Latin, and Mr. Raddatz in German. There are also sections for the study of Arithmetic, French and English Grammar. I commend this Association to the support and encouragement of the Board.

My special acknowledgments are due to Mr. Wise, for the valuable aid rendered in the preparation of the statistical tables accompanying this report, and to teachers and commissioners who have co-operated with me in endeavoring to promote the welfare of our Public Schools.

HENRY E. SHEPHERD,

Superintendent.

TABLES ACCOMPANYING SUPERINTENDENT'S REPORT

SHOWING THE

Number of Pay Pupils, Number of Free Pupils, Number on Roll, Average Attendance, Percentage of Attendance, Number of Different Pupils in School during the year, and number of Teachers.

SCHOOLS.	Pay.	Free.	On Roll Oct. 31st.	Average attendance	No. in School during year.	No. of Teachers.	Percentage of attendance during year.
Baltimore City College	357	32	389	345	624	14	89
Eastern Female High School	233	52	285	244	417	11	89
Western Female High School	377	50	427	394	577	12	89
	967	134	1101	983	1618	37	89
Male Grammar No. 1	256	39	295	258	416	7	90
" " 2	174	165	339	318	497	7	89
" " 3	110	104	214	191	318	5	88
" " 4	149	100	249	216	357	6	90
" " 5	46	154	200	160	282	5	82
" " 6	315	43	357	308	496	8	85
" " 7	33	74	107	93	151	3	84
" " 8	140	124	264	226	370	6	88
" " 9	103	87	190	172	308	5	90
" " 10	71	148	219	186	315	6	85
" " 11	102	146	248	208	377	6	85
" " 12	82	169	251	204	356	6	82
" " 13	111	103	214	191	317	6	90
" " 15	275	68	343	302	518	8	85
" " 17	132	83	215	184	292	5	87
" " 18	104	93	197	156	277	5	84
" " 19	120	60	180	156	242	4	85
" " 20	102	142	244	191	382	5	80
" " 21	133	60	193	178	284	5	89
	2558	1961	4519	3898	6555	108	86.2

FEMALE GRAMMAR SCHOOLS.

SCHOOLS.	Pay.	Free.	On Roll Oct. 31st.	Average attendance	No. in School during year.	No. Teachers.	Percentage of attendance during year.
Female Grammar No. 1	357	103	460	393	660	10	85
" " 2	125	174	299	262	431	7	80
" " 3	103	96	199	168	305	5	85
" " 4	132	138	270	226	358	6	83
" " 5	40	167	207	164	295	5	82
" " 6	180	77	257	206	348	5	81
" " 8	156	112	268	223	391	6	83
" " 9	54	81	135	121	223	4	91
" " 10	82	153	235	202	329	6	83
" " 11	86	166	252	210	345	6	82
" " 12	73	147	220	186	298	5	83
" " 13	186	120	306	269	422	8	88
" " 15	195	88	283	233	416	6	80
" " 16	24	113	137	100	171	2	89
" " 17	164	119	283	234	387	6	82
" " 18	130	122	252	211	377	6	81
" " 19	125	55	180	148	246	4	82
" " 20	117	190	307	251	386	6	82
" " 21	152	100	252	212	363	6	85
	2481	2321	4802	4019	6851	109	83.7

MALE PRIMARY SCHOOLS.

SCHOOLS.	Pay.	Free.	On Roll Oct. 31st.	Average attendance	No. in School during year.	No. of Teachers.	Percentage of attendance during year.
Male Primary No. 1	250	209	459	386	711	10	88
" " 2	24	137	161	138	249	4	82
" " 3	71	209	280	205	400	5	76
" " 4	120	175	295	241	420	6	83
" " 5	45	406	451	357	559	9	75
" " 6	109	175	284	232	394	6	81
" " 7	64	133	197	165	307	5	85
" " 8	52	153	205	166	331	5	81
" " 9	32	143	175	130	288	4	74
" " 10	39	213	252	219	359	6	82
" " 11	48	194	242	187	347	5	79
" " 12	72	209	281	236	437	6	84
" " 13	32	194	226	179	335	5	77
" " 14	181	108	289	226	389	6	81
" " 15	227	152	379	330	530	8	84
" " 16	46	260	306	240	428	6	79
" " 17	57	273	330	281	508	8	83
" " 18	136	63	199	160	315	4	80
" " 19	47	132	179	133	290	4	76
" " 20	88	263	351	273	554	7	75
" " 21	98	167	265	218	393	6	79
" " 22	21	244	265	226	377	6	84
" " 23	121	176	297	227	430	6	77
" " 25	37	134	171	123	262	4	75
" " 26	70	155	225	182	349	5	77
" " 27	104	157	261	222	365	6	85
" " 28	21	229	250	209	392	6	76
" " 29	21	136	157	119	223	4	77
" " 30	93	181	274	210	485	6	78
	2326	5380	7706	6411	11427	168	84

FEMALE PRIMARY SCHOOLS.

SCHOOLS.	Pay.	Free.	On Roll Oct. 31st.	Average attendance	No. in School during year.	No. of Teachers.	Percentage of attendance during year.
Female Primary No. 1	324	159	483	388	807	11	78
" " 2	39	138	177	147	247	4	82
" " 3	84	197	281	225	423	5	74
" " 4	115	171	286	225	440	5	76
" " 5	45	349	394	342	591	8	82
" " 6	88	167	255	206	358	6	79
" " 7	53	154	207	161	328	4	78
" " 8	55	97	152	121	240	4	82
" " 9	59	185	244	198	408	5	82
" " 10	77	171	248	195	353	5	77
" " 11	45	176	221	175	346	5	75
" " 12	52	297	349	295	527	8	84
" " 13	44	149	193	167	281	4	80
" " 14	104	91	195	145	277	4	76
" " 15	190	189	379	327	567	8	84
" " 16	37	246	283	221	401	5	76
" " 17	59	266	325	258	501	7	77
" " 18	147	68	215	168	325	4	78
" " 19	35	104	139	122	263	3	84
" " 20	140	216	356	270	562	7	74
" " 21	115	192	307	227	445	6	70
" " 22	19	261	280	227	406	6	77
" " 23	97	237	334	267	449	7	82
" " 25	18	140	158	114	231	3	73
" " 26	72	149	221	187	348	5	79
" " 27	128	175	303	259	448	7	81
" " 28	30	266	296	232	416	6	78
" " 29	33	120	153	119	231	3	74
" " 30	118	221	339	261	477	7	74
" " 32	53	172	225	170	309	5	78
	2475	5523	7998	6419	12005	167	80

ENGLISH-GERMAN, EVENING AND COLORED SCHOOLS.

SCHOOLS.	Pay.	Free.	On Roll Oct. 31st.	Average attendance	No. in School during year.	No. of Teachers.	Percentage of attendance during year.
English-German No. 1	476	56	532	468	716	12	86
" " 2	606	0	606	567	822	13	94
" " 3	775	0	775	711	949	17	91
" " 4	495	71	566	505	756	13	90
" " 5	580	116	696	631	971	16	88
	2932	243	3175	2882	4214	71	90.8
Evening No. 2	2	120	122	102	123	3	81
" " 3	0	56	56	41	71	2	63
" " 4	0	150	150	116	150	5	69
COLORED SCHOOLS.	2	326	328	259	344	10	79
Grammar Colored No. 1	28	178	206	182	351	5	84
Male Colored " 1	0	161	161	115	270	3	79
" " 2	7	329	336	253	496	7	84
" " 3	25	249	274	193	486	6	76
" " 4	33	143	176	96	224	2	72
" " 5	16	178	194	147	273	4	83
" " 6	0	234	234	146	345	4	60
" " 7	0	380	380	273	778	8	74
Female Colored " 1	12	219	231	136	421	4	56
" " 2	7	351	358	272	568	8	75
" " 3	13	298	311	261	550	7	82
" " 4	24	337	361	230	535	6	62
	165	3057	3222	2304	5297	64	75
Colored Evening No. 1	15	139	154	111	214	3	76
" " 3	0	321	321	173	320	6	54
" " 5	38	93	131	71	140	3	53
" " 7	0	305	305	111	431	3	35
	53	858	911	466	1105	15	54

SUMMARY STATEMENT.

Showing the number of Schools, Teachers, Pay Pupils, Free Pupils on Roll October 31st, 1877, Average Attendance, Number of Different Pupils in School during the year, and percentage of attendance.

SCHOOLS.	No. of Schools.	No. of Teachers.	No. of Pay Pupils.	No. of Free Pupils.	No. on Roll Oct. 31, '77.	Average Attendance.	No. of different Pupils in School during year.	Percentage of attendance during year.
Baltimore City College.....	1	14	357	32	389	345	624	89
Eastern Female High School.	1	11	233	52	285	244	417	89
Western Female High School	1	12	377	50	427	394	577	89
Male Grammar Schools.....	19	108	2558	1961	4519	3898	6555	86.2
Female Grammar Schools...	19	109	2481	2321	4802	4019	6851	83.7
English-German Schools...	5	71	2932	243	3175	2882	4214	90.8
Male Primary Schools.....	29	168	2326	5380	7706	6411	11427	83.2
Female Primary Schools....	30	167	2475	5523	7998	6419	12005	80
Evening Schools.....	7	10	2	326	328	259	344	79
Colored Schools.....	12	64	165	3057	3222	2304	5297	72
Colored Evening Schools....	4	15	53	858	911	466	1105	54
Saturday Normal Class.....	1	5	.....	184	184	138	234	75
Music Teachers.....	...	5	.....	.....	.....	.....	.....	....
Drawing Teachers.....	...	5	.....	.....	.....	.....	.....	....
	129	764	13959	19987	33946	27779	49650	81.8

Number promoted to City College and High Schools.....514
" " " Grammar Schools.....3194
—— 3,708

Number of different pupils in School during the year.....45,942

EXAMINATION FOR PROMOTION

From Primary to Grammar Schools, February 1st, 1877.

MALE.	Examined.	Passed.	Promoted.	FEMALE.	Examined.	Passed.	Promoted.
No. 1	50	40	44	No. 1	41	38	38
" 2	17	16	17	" 2	13	13	13
" 3	21	11	17	" 3	12	12	12
" 4	33	32	32	" 4	28	26	28
" 5	40	28	34	" 5	29	27	28
" 6	28	27	28	" 6	25	24	24
" 7	21	21	21	" 7	34	30	30
" 8	22	21	21	" 8	16	15	16
" 9	20	20	20	" 9	29	29	29
" 10	29	22	23	" 10	25	22	25
" 11	23	16	21	" 11	17	16	16
" 12	37	32	37	" 12	36	34	35
" 13	23	20	23	" 13	17	17	17
" 14	25	23	24	" 14	14	14	14
" 15	51	43	44	" 15	45	41	41
" 16	21	16	18	" 16	19	19	19
" 17	35	35	35	" 17	35	35	35
" 18	20	16	20	" 18	23	22	22
" 19	8	8	8	" 19	22	22	22
" 20	41	39	41	" 20	40	40	40
" 21	16	13	16	" 21	28	27	27
" 22	17	17	17	" 22	20	18	20
" 23	32	31	31	" 23	35	35	35
" 25	23	23	23	" 25	13	12	13
" 26	24	24	24	" 26	23	18	22
" 27	17	17	17	" 27	38	36	38
" 28	15	15	15	" 28	25	23	23
" 29	13	13	13	" 29	19	17	19
" 30	27	24	25	" 30	27	26	27
				" 32	20	20	20
	749	663	709				
	766	728	748		766	728	748
	1515	1391	1457				

EXAMINATION FOR PROMOTION

From Primary to Grammar Schools, June 22d, 1877.

MALE.	Examined.	Passed.	Promoted.	FEMALE.	Examined.	Passed.	Promoted.
No. 1	57	49	49	No. 1	68	62	62
" 2	19	18	19	" 2	12	10	12
" 3	28	20	26	" 3	26	25	25
" 4	22	22	22	" 4	23	23	23
" 5	23	22	22	" 5	38	37	38
" 6	28	27	28	" 6	30	22	22
" 7	23	23	23	" 7	31	30	30
" 8	23	22	22	" 8	20	18	18
" 9	23	22	22	" 9	29	28	29
" 10	30	26	26	" 10	16	16	16
" 11	22	20	21	" 11	30	29	29
" 12	35	33	33	" 12	40	34	34
" 13	24	24	24	" 13	20	20	20
" 14	36	35	35	" 14	15	15	15
" 15	34	33	34	" 15	42	42	42
" 16	26	21	26	" 16	11	11	11
" 17	27	27	27	" 17	29	29	29
" 18	25	23	23	" 18	30	30	30
" 19	25	24	24	" 19	17	15	17
" 20	42	42	42	" 20	48	47	47
" 21	25	21	22	" 21	20	20	20
" 22	25	21	24	" 22	30	27	27
" 23	29	28	28	" 23	31	31	31
" 25	14	14	14	" 25	25	21	21
" 26	30	28	28	" 26	37	36	36
" 27	20	20	20	" 27	34	34	34
" 28	11	11	11	" 28	18	18	18
" 29	13	10	10	" 29	10	10	10
" 30	38	37	38	" 30	35	34	34
				" 32	21	21	21
	777	723	743				
	836	795	801		836	795	801
	1613	1518	1544				

1877. { Number of Boys and Girls Examined.... 3128
" " " Passed..... 2909
" " " Promoted.....3001

EXAMINATIONS FOR PROMOTION

From Colored Primaries to the Grammar School, February 1st, 1877.

MALE.	Examined.	Passed.	Promoted.	FEMALE.	Examined.	Passed.	Promoted.
No. 1	5	5	5	No. 1	4	4	4
" 2	24	14	16	" 2	22	17	19
" 3	19	12	13	" 3	21	16	17
" 4	5	2	3	" 4	10	10	10
" 5	11	9	9				
" 7	22	14	15				
	86	56	61		57	47	50
	57	47	50				
Total.....	143	103	111				

June 29th, 1877.

MALE.	Examined.	Passed.	Promoted.	FEMALE.	Examined.	Passed.	Promoted.
No. 1	6	6	6	No. 1	4	4	4
" 2	18	13	13	" 2	17	11	11
" 3	10	9	9	" 3	12	9	9
" 4	3	1	1	" 4	8	6	6
" 5	11	8	8				
" 6	0	0	0				
" 7	15	15	15				
	63	52	52		41	30	30
	41	30	30				
Total.....	104	82	82				

1877. { Examined.....247
Passed.....185
Promoted.....193

NUMBER OF PUPILS

In High, Grammar and Primary Schools, November 30th, 1877.

SCHOOLS.	Grammar School Pupils.	Primary School Pupils.	SCHOOLS.	Grammar School Pupils.	Primary School Pupils.
Fem. Grammar, No. 16	40	97	Male Colored, No. 1..	11	150
English-German, No. 1	158	374	" " " 2..	25	311
" " " 2	163	443	" " " 3..	31	243
" " " 3	253	522	" " " 4..	11	165
" " " 4	144	422	" " " 5..	22	172
" " " 5	246	450	" " " 6..	11	223
			" " " 7..	19	361
	1004	2308	Female Colored, No. 1	10	221
	227	2789	" " " 2	35	323
			" " " 3	32	279
	1231	5097	" " " 4	20	341
No. in Gram. Schools..	9390				
No. in Primary Schools		15704			
	10621	20801		227	2789

Number of pupils in High Schools	1,101
" " Grammar Schools	10,621
" " Primary Schools	20,801
" " Evening and Saturday Normal Class	1,423
	33,946

NUMBER IN DIFFERENT GRADES OF SCHOOLS COMPARED.

For 1876 and 1877.

In Primary Schools—1877	15,704	
" " 1876	15,361	
Increase		343
In Grammar Schools—1877	9,321	
" " 1876	8,623	
Increase		698
In High Schools—1877	1,101	
" " 1876	1,181	
Decrease		80
In Evening Schools—1877	328	
" " 1876	133	
Increase		195
In Colored Schools—1877	3,222	
" " 1876	2,943	
Increase		279
In Evening Schools, (Colored)—1877	911	
" " " 1876	200	
Increase		711
In English-German Schools—1877	3,175	
" " " 1876	2,963	
Increase		212
Total Increase for year		2,358

TABLE.

Showing the number of Pupils and Teachers in the Public Schools on the last day of each fiscal year, from the year 1829, *when the first Public School was opened, to the year* 1877, *inclusive.*

Date.	Teachers.	Pupils.	Date.	Teachers.	Pupils.
1829	3	269	1854	209	9,717
1830	5	402	1855	217	10,913
1831	5	627	1856	253	12,946
1832	5	640	1857	246	11,759
1833	8	544	1858	270	12,663
1834	8	859	1859	271	12,419
1835	8	867	1860	302	14,156
1836	8	814	1861	317	13,952
1837	8	659	1862	319	14,382
1838	8	675	1863	350	15,661
1839	8	1,126	1864	358	16,086
1840	16	1,834	1865	377	16,523
1841	22	2,539	1866	411	17,967
1842	27	2,471	1867	513	18,896
1843	28	2,669	1868	555	20,591
1844	30	3,366	1869	558	23,159
1845	50	4,313	1870	571	24,673
1846	64	5,017	1871	518	25,357
1847	91	6,439	1872	614	26,375
1848	98	6,699	1873	624	28,329
1849	107	6,763	1874	661	29,108
1850	119	7,093	1875	706	31,356
1851	138	8,011	1876	731	31,404
1852	172	9,081	1877	764	33,946
1853	194	9,447			

REPORT

OF THE

Assistant Superintendent.

BALTIMORE, October 31st, 1877.

HENRY E. SHEPHERD, ESQ.,

Superintendent of Public Instruction:

SIR:—

In compliance with a rule of the Board the following report is submitted for their consideration.

From the statistical tables accompanying the Superintendent's report it will be seen that the number of pupils attending Primary Schools, exclusive of Night Schools, is 20,801—about sixty-five per cent. of all the pupils attending our schools. This number last year was 19,876, showing an increase of 925 pupils attending Primary Schools. This iucludes the Primary Department of English-German Schools, of Female Grammar School No. 16, and of Colored Schools. The increase in the number attending Grammar Schools, including the grammar department of English-German Schools, of Female Grammar School No 16, and of Colored Schools is 724. The number of pupils attending High Schools this year is 80 less than last

year. The increase in the number attending English-German Schools this year is only 212; last year it was 1,216. The total increase in the number of pupils attending schools of all grades is 2,358; last year it was 48.

The percentage of attendance in the Male Primary Schools this year is 83.2, last year it was about 81; in the Female Primary Schools it is 80, last year it was about 79. In the English-German Schools this year the percentage of attendance is about 91, last year it was about 90. The percentage of attendance this year in the colored schools is 72, last year it was 70. The percentage of attendance last year in all the schools was 81.4, this year it is 81.8. This increase in the attendance is gratifying, and is to be attributed, somewhat to the fact that the teachers themselves are much more punctual than formerly, and that the rules of the Board are more judiciously enforced.

It would be of great assistance in forming a judgment of the manner in which our system is working, to have tables showing the numbers passed from grade to grade at the various examinations. It was intended to furnish such a statement in this report, but owing to the impossibility of consolidating the returns gotten from the principals of the schools for this purpose, it has not been done. Of course in a perfect school system, working upon entirely favorable conditions, every pupil would pass at examinations—while perfection is not to be attained, still by noticing how far we advance or recede in this respect, more accurate ideas may be formed of the value and strength of the system, and alterations suggested for its improvement. Of the 15,704 pupils attending Male and Female Primary Schools, 1,457 were promoted at the February examination, and 1,544 at the one held in June.

During the past year I think we have made progress in improving our methods of instruction, especially in Teaching

Reading and Arithmetic. Many of our schools in which the teachers busy themselves to know what is new upon the subject of elementary instruction, will compare favorably, as far as my judgment will enable me to determine, with the best schools in this country.

In teaching the alphabet, the best and most successful teachers, no longer confine themselves to the method of teaching it letter by letter; but teach the simplest words as such from the commencement. By this method pupils learn first to read short easy sentences, composed of familiar words, and learn by degrees the letters.

For some time persons engaged in the practical work of instructing this class of pupils, have been agreed that this plan not only enables the pupil to proceed with greater progress, but by using these lessons in connection with appropriate objects, they heighten the interest, secure the attention, and develop gradually the most important mental faculties.

The plan of using the Reading-book as a Spelling-book also, is working very successfully. While less time is devoted to teaching spelling than formerly, pupils are not only much more familiar with the spelling and meaning of words in ordinary use, but are much better readers. The spelling-book is still used as an exercise book to advantage.

On all occasions our best teachers take the greatest care to promote perfect articulation and the correct use of language. This deserves constant attention in the Primary School classes, especially the lowest, for here if not before the foundation is laid for a correct use of the *mother* tongue.

The rule adopted by the Board by the suggestion of Mr. John B. Wentz, Chairman of the Committee on Education, of the City Council, requiring pupils to enter the Alphabet Class during the months of September and February only; is work-

ing to great advantage, relieving teachers in charge of these classes of much unnecessary labor, and causing the promotions to be more uniform.

I am satisfied Reading is taught with much more success than formerly. The main effort being to get the pupils to read naturally, with correct articulation and pronunciation. After the recitation the pupil is called upon to relate in grammatical language the substance of the lesson. "Simultaneous Recitations" or "Concert Exercises," the great use of which under certain circumstances cannot be denied, are becoming less frequently used than formerly, and more individual instruction is given. The injudicious use of these exercises does great harm by cultivating inattention as well as a slovenly and unnatural manner of speaking. Teachers are learning every day *to use* these exercises, and many in the higher grades get on without them. Some of the most serious faults of young pupils which proper supervision on the part of teachers is intended to lessen, day by day, are cultivated and fostered by this *easy* mode of instruction.

Although Arithmetic in some of the schools still continues to be taught by rote, the pupils being instructed no further in this branch than simply how to perform the addition, subtraction, multiplication and division of abstract numbers, yet teachers are becoming more and more appreciative of the necessity for instruction in Mental and Practical Arithmetic. Many teachers find the labor of teaching the mere addition, subtraction, multiplication and division of abstract numbers greatly decreased by the use of properly selected exercises in Mental and Practical Arithmetic, and at the same time rendered much less irksome and monotonous.

Writing is well taught in most of the schools, while some find great difficulty in securing a minimum of proficiency in

this useful branch. Improvement though is gradually going on, and in time we may expect to see the subject receive proper attention in all of the schools. Many teachers in the lowest classes teach the whole script alphabet with the expectation that by means of a thorough knowledge of the "elements and principles" their pupils will in time write good hands. Some teachers instead of using the admirable system laid down in the copy-book to teach their pupils to write a legible and uniform hand, misuse it rather to teach the *drawing* of letters and in many cases actually to prevent the pupils from acquiring a handwriting, such as the system, when properly understood and taught, is intended to develop gradually.

Drawing is receiving through the special and regular teachers all the attention desirable. The proficiency acquired in this branch as well as the cultivation of the eye and taste are more than equivalent for the expense incurred.

Music is successfully taught under the present management. The skill and proficiency displayed by the pupils at the annual examinations, eliciting the warm commendation of the musical experts invited to be present. Instead of the present arrangement of having a music lesson of fifteen minutes every day and a drawing lesson also of twenty minutes, it would be better if instruction were given in these two studies on alternate days, having three lessons a week in Music and two in Drawing.

Geography continues to be taught orally from the outline maps of the Hemispheres and Maryland.

Many of our buildings are not well adapted to the uses for which they were intended. Some of them though comparatively new are badly lighted, heated and ventilated, and not well arranged for the accomodation of classes. Class-rooms accomodating only from 30 to 40 pupils cannot possibly seat a sufficient number to give an average attendance of 40, the

number each teacher is expected to instruct. The percentage of attendance being about 80, in order to seat a sufficient number of pupils to have 40 in average attendance, the seating capacity of a room ought to be at least 45, and in the lower classes more, reaching 80 sometimes in the lowest. This seems to be a trifling matter but if given proper attention teachers would be relieved of much unnecessary annoyance and the usefulness of school-buildings greatly enhanced.

I would respectfully recommend that a " model building" constructed upon the very best scientific principles in regard to arrangement, size of class-rooms, heating, lighting and ventilation be adopted by the Board and that all new buildings be constructed in accordance therewith. By an inspection of the buildings constructed within the last 6 or 8 years, it can be easily seen how an arrangement of the kind recommended would relieve the city of much unnecessary expense and at the same time secure buildings more suited to the purposes intended. Class-rooms should be of sufficient size, at least to allow 108 cubic feet of air space to each pupil and 9 square feet of floor space. The height of the ceiling should be from 12 to 15 feet. These provisions are absolutely necessary to furnish each pupil the amount of air necessary for health.

Causes tending to vitiate the air sorrounding the building should be carefully eliminated.

" Ventilation and heating are almost inseparably connected. One of the simplest and most effective methods of ventilation consists of a chimney of two flues one for fire and the other for ventilation. The latter is separated from the former by a partition of metal which becomes heated by the air from the fire, and by warming the column of air in the ventilating flue, causes it to ascend, tending thus to produce a vacuum which the foul air of the room rushes in to fill. The ventilating flue

has two registers, one near the floor, the other near the ceiling, both of which can be controlled at pleasure. A more economical method consists in making a ventilating flue only, sufficiently large to permit the passage of the stove pipe along its middle line, while leaving considerable air space around the latter. By extending the stove pipe to the top of the house, the heat of the stove is used as in the previous case."

The Saturday Normal Class has been very useful in preparing some of our newly appointed teachers to undertake their work to advantage. The State Normal School has been of great service, but the want of a Training and Model School for teachers in our city is greatly felt. At small expense there might be organized in connection with the new building on the corner of Green and Fayette Streets a Training School for teachers. Male and Female Primary Schools No. 1 could be used as Model Schools in which the practical work of teaching could be taught. If teachers' certificates not only indicated that the holder is well instructed in the ordinary branches of an education, but also that the ability to impart instruction and discipline a class is possessed, then our Primary Schools which require the very best teachers would cease to be fields in which neophytes acquire experience in teaching, too often, at the expense of the pupils. In giving the lowest grade teacher additional pay, our system acknowledges the correctness of a generally received opinion among educators that the youngest pupils require the best instruction; but it is to be regretted that it shows itself lamentably inconsistent in continually transferring the best teachers from the Primary to the Grammar Schools. This is an error calling for correction, and it is earnestly recommended that the 2nd and 3rd assistants in the Primary and Grammar Schools be placed on the same footing, and that promotion for merit be made from the Grammar to

the Primary Schools. By the present system it is often the case that by the time a newly appointed teacher becomes useful in a Primary School she is transferred to a Grammar School, and the vacancy supplied by a person who has everything to learn in the way of teaching. This every one will admit is greatly to the injury of our Primary Schools.

By way of illustration, it may be stated that one of our Primary Schools with six teachers has had about twelve changes of teachers within two or three years. It is to be remembered that teachers with some experience at least were replaced by others, in most cases who never had charge of a class in their lives, except may be occasionally as a substitute.

Writers upon school management acknowledge the great educational problem of the day to be—How to secure good attendance. Experience and observation fully teach that attendance can be secured *as far as is desirable* by judiciously carrying out the rules of the Board relating thereto. Every teacher exercises an influence in securing attendance, and the responsibility must not be considered to rest entirely upon the Principal as is the case in some schools. The ability to control attendance is an important item of the qualifications which make a good teacher. If in a school with six teachers the attendance in the different classes varies from 60 to 90 per cent. it cannot be gainsaid that the teacher whose average is only 60 per cent. is not efficient in securing attendance. Each teacher in a school should keep a bi-weekly report of her class, and compare her attendance with that of the others, and her ability in this respect can be easily ascertained. English-German School No. 2 has the best attendance of any school in the city, which is to be attributed to careful management on the part of the teachers, and *co-operation on the part of parents.* In securing good attendance and in disciplining a school, nothing

is of so great importance as securing the co-operation of parents. With this influence everything possible can be accomplished, without it nothing. Most of the Colored Schools present an example on the other extreme, some of them securing an average attendance not greater than 40 per cent. Here the teacher *may* do all that is possible, but parents have not a proper appreciation of the necessity for regular attendance. Some of the Principals do not observe the rules relating to truancy. Absentees are not always required to furnish satisfactory reasons for absence as they should be—teachers and parents being both imposed upon. Truancy seldom occurs in our best Primaries in certain localities, but in a few schools this evil prevails to too great an extent and is due mainly to mismanagement on the part of those called upon by the rules of the Board to correct it.

As a means of improving the attendance and preventing truancy, it is respectfully urged that those entrusted with that duty by the Board have more regard to the enforcement of the following rules: ART. XXII, SEC. 1.—"Pupils who have been absent from school in any week for a space of time equal to two days, or in any month for a space of time equal to four days, except such absence be occasioned by sickness, will not be permitted to return without a note from one of the Committee in charge of the school." ART. XXIII, SEC. 4—"Truant playing shall be considered a flagrant offence, and no pupil shall be received after playing truant without authority from the Local Committee; nor shall any such Committee or Commissioner give such authority to any pupil who has been guilty of this offence more than twice during the current scholastic year." ART. XVI, SEC. 3—"Pupils shall attend the school nearest their residence, unless otherwise approved of by the Board or

the Local Committee having charge of the school to which they properly belong."

I desire to express my thanks to the Board and its officers, the teachers, and yourself, for courtesy and kindness extended to me on all occasions.

Respectfully submitted,

HENRY A. WISE,

Ass't Supt.

THIRTY-NINTH ANNUAL REPORT

OF

BALTIMORE CITY COLLEGE

WITH

ACCOMPANYING PAPERS,

FOR

A. D. MDCCCLXXVII.

Committee on Baltimore City College.

CHARLES E. PHELPS,

49 St. Paul Street.

JOHN F. HANCOCK,

Baltimore and Caroline Streets.

*WILLIAM P. TONRY,

Maryland Institute.

G. S. GRIFFITH, JR.,

89 & 91 West Baltimore Street.

JOHN T. MORRIS, *ex-officio*,

43 North Charles Street.

*Elected to City Council, and succeeded in the Board by JOHN B. BOYLE, M. D.

Faculty of Baltimore City College.

WILLIAM ELLIOTT, Jr., A. M., Ph. D, Principal,
Professor of Higher Mathematics.

J. ASBURY MORGAN, A. M., Vice-Principal,
Professor of the Greek Language and of Mental and Moral Philosophy.

JAMES R. WEBSTER,
Professor of Writing and Book-keeping.

ANDREW S. KERR,
Professor of Mathematics and Astronomy.

A. L. MILLES, B. A.,
Professor of the French Language, and Adjunct Professor of Latin.

CHARLES F. RADDATZ,
Professor of the German Language.

CHAPMAN MAUPIN, M. A.,
Professor of the Latin Language.

POWHATAN CLARKE, M. D.,
Professor of Natural Science.

CHARLES C. WIGHT,
Professor of History and English Literature.

RICHARD W. PREECE,
Professor of Drawing.

ALEXANDER HAMILTON,
Adjunct Professor of English and Mathematics.

N. H. THAYER, A. M.,
Adjunct Professor of Natural Science.

STEPHEN F. NORRIS,
Tutor.

HENINGHAM GORDON, B. A.,
Tutor.

COMMENCEMENT.

The Exercises of the Twenty-seventh Commencement were held in Ford's Grand Opera House, on Wednesday, June 27, 1877.

I. Certificates were given to the following named young men, in testimony of their having completed satisfactorily the course of study of four years:

MILTON WHITNEY AUDOUN,
THOMAS RANDOLPH BALL,
MANLY HOWELL BARNES,
HARRY MILTON CHENOWETH,
DANIEL JAMES EMICH,
JOHN MICHAEL FRISCH,
JOHN MICHAEL GALLAGHER,
EDWARD JOSEPH GEIS,
JACOB GRAPE, JR.,
ROBERT VINTON LANSDALE, JR.,
CHAS. HENRY LAUCHHEIMER,
LUTHER CARVILLE MARLEY,
CHAS. AUGUSTUS A. J. MÜLLER,
JACOB JOSHUA HIRAM MITNICK,
ISADORE NOAH,
ALLEN BILLINGSLEY QUINAN,
DEWITT CLINTON REDGRAVE,
EDWARD HENRY SPIEKER,
SAMUEL FREDERICK ZIEGLER, JR.

II. The following honorary appointments were made by the Faculty:

EDW. H. SPIEKER..... The Honorary Oration.
C. AUGUSTUS A. J. MÜLLER.....The Valedictory Oration.
LUTHER C. MARLEY .....The Salutatory Address.

III. The Peabody Prizes (in all $500,) were awarded by the Faculty and distributed by Philip R. Uhler, Esq., Librarian of the Peabody Institute, as follows:

OF THE FIRST GRADE, ONE HUNDRED DOLLARS EACH.

EDWARD H. SPIEKER,
C. AUGUSTUS A. J. MÜLLER,
JACOB J. H. MITNICK.

OF THE SECOND GRADE, FIFTY DOLLARS EACH.

CHARLES H. LAUGHHEIMER,
HARRY H. CHENOWETH,
SAMUEL F. ZEIGLER, JR.,
EDWARD J. GEIS.

REPORT

OF THE

Principal of Baltimore City College.

BALTIMORE, December 31, 1877.

To the Board of Public School Commissioners:

GENTLEMEN:

The course of study in the City College having been extended to five years, it was, in consequence thereof, not intended to hold the usual Commencement Exercises at the close of the last scholastic year.

For reasons however, sufficient in the opinion of the Committee on the College, it was thought proper to award publicly to the members of the class of 1877, certificates indicating that the recipients thereof had satisfactorily completed a four years course.

The exercises connected with the distribution of these certificates, were held in Ford's Opera House, on the evening of June 27, in the presence of a large and appreciative audience.

Hon. Ferdinand C. Latrobe, Mayor of the City, (who, during his entire administration never failed to manifest his deep

interest in Public Instruction), was present and accompanied the presentation of the certificates to the young men with some remarks, alike creditable to his head and heart.

John T. Morris, Esq., President of the School Board, on behalf of the Society for the encouragement of the study of Early English, presented to Messrs. Manly H. Barnes and Chas. H. Lauchheimer, respectively, copies of the publications of that society, for their attainments in that branch of study.

The Peabody Prizes were then presented to the young gentlemen who had successfully competed for them, by Philip R. Uhler, Esq., Librarian of the Peabody Institute; their names are given on a preceding page.

After which the certificates, authorized by the board for that purpose, were handed to the members of the One Year class, who, having fulfilled all the required conditions, were entitled to receive them.

On the second and third days of July the usual examination for admission took place.

At this examination there were present from the Grammar schools, 236 candidates; from the English-German schools, 13, and from private schools 8; in all, 257.

Of the applicants from Grammar schools, 207; from English-German schools, 13; and from private schools, 2; in all 222, were recommended by the Committee, and admitted to the College by the Board.

Special examinations were subsequently granted to other candidates from private schools, by which the number admitted from these schools was increased to 10.

Our full roll was as follows:

Returned after Summer vacation	223
Former students re-entered	4
Entered from Grammar Schools	187
" " English-German Schools	11
" " Private Schools	10
Total number	435

At the last election of teachers, Prof. N. H. Thayer was elected Librarian of the Public School Teachers' Library, and Adjunct Professor of Natural Science in this College.

Upon the opening of the schools in September, Prof. Thayer entered on his duties in connection with the College, and has to the present acceptably performed the same.

With this exception the personnel of the Faculty remains the same as it was at the time of my last report.

Believing that the schedule of weekly exercises, which has heretofore required all the time spent in school to be devoted to recitation, could be advantageously changed by assigning a portion of that time for preparation of lessons under the supervision of a member of the Faculty; such a change was made, with results that clearly indicate its propriety.

Shortly after the close of the scholastic year Hon. Thomas Swann made known to the President of the Board, through His Honor the Mayor, his intention to appoint to two cadetships, at West Point and Annapolis respectively, then at his disposal, the two young men from among the students of the College, who, after a competitive examination, should be declared best qualified for said positions.

This examination was held early in August, under the supervision of the Principals of the College and Eastern Female High School, and resulted in favor of Master Allen B. Quinan for the appointment to West Point, and of Master Chas. H.

Lauchheimer, for the Naval Cadetship; both of them having previously passed the physical examination, which was conducted by Dr. Jas. A. Steuart, City Health Commissioner.

Masters Quinan and Lauchheimer are now pursuing their studies in the Military and Naval Academies, respectively.

In this connection I deem it worthy of mention, that at the Competitive Examination held last summer at Annapolis, for appointments as cadet-engineers in U. S. N., Masters D. W. C. Redgrave and Harry R. McCreary, former pupils of the College, were the only successful contestants for said positions, from Maryland.

Another fact, which, I am sure will not be of less interest to the friends of the College than those already mentioned, is that at the present time there are enrolled among the students of Johns Hopkins University fourteen young men who have passed through the City College and are now, as I am informed, among the most promising candidates for Baccalaureate degrees.

I state the foregoing facts here, not to make the impression that the City College is a preparatory institution for any other one, but for the purpose of giving to the citizens of Baltimore such information as may enable them to draw just conclusions with regard to its efficiency.

To a knowledge of the College derivable from these facts, we ask our fellow-citizens to add that which comes from personal inspection and examination.

For this purpose we cordially invite them to visit the College at their convenience, and thus determine whether or not their money is judiciously expended in its maintenance.

In conclusion I take occasion to say, that since my last report our exercises have continued without any other than the usual interruptions; that my colleagues have labored diligently in their respective departments and have also co-operated with me

in promoting the general interests of the College, and further, that our students, with a few exceptions, have, both as regards attention to study and general deportment, merited commendation.

It only remains for me to express to the members of the Board, especially to those who constitute the Committee on the College, my hearty appreciation of their efforts in its behalf.

Very respectfully,

WM. ELLIOTT, JR.,

Principal.

CURRICULUM.

FIRST YEAR.

English Grammar and Analysis,
Elocution,
History of England,
Writing,
Physiology,
Latin, commenced,
Book-Keeping, commenced,
Algebra, completed,
Geometry, III Books.

SECOND YEAR.

Rhetoric, Composition and Elocution,
English Grammar and Analysis,
History of Rome,
Book-Keeping, continued,
Physical Geography,
Natural Philosophy,
Latin, continued,
German, commenced,
Geometry, completed,
Plane Trigonometry,
Mensuration.

TRIRD YEAR.

Rhetoric, Composition and Elocution,
History of English Literature,
History of Greece,
Natural Philosophy, (full course,)
Astronomy, commenced,
Latin, continued,
German, continued,
Greek, commenced, (optional,)
French, commenced,
Surveying and Navigation,
Spherical Trigonometry.

FOURTH YEAR.

Original Speeches and Elocution,
English Literature,
History of the Ancient Empires,
Mental Philosophy,
Moral Philosophy,
Constitution of the United States,
Chemistry,
Latin, continued,
Greek, continued,
French, continued,
German, continued,
Analytical Geometry,
Astronomy, completed,
Review of Mathematics.

FIFTH YEAR.

Latin,
Greek,
Calculus,
English Literature,
Logic,
Moral Philosophy,
French,
German,
Chemistry,
Astronomy.

ONE YEAR COURSE.

English Grammar,
Commercial Arithemetic,
Book-Keeping and Business Correspondence,
History of the United States,
Physiology,
Drawing,
Physics.

Recitations of Baltimore City College.

77th and 78th Terms.

I. RECITATIONS HEARD EACH WEEK BY THE RESPECTIVE PROFESSORS.

PROF. ELLIOTT—Plane and Spherical Trigonometry, 4 times; Analytical Geometry, 4 times; Calculus, 3 times; Preparation, 2 times.....13

PROF. MORGAN—Greek, 16 times; Latin, 4 times; Mental Science, 2 times; Constitution, U. S. once.....23

PROF. WEBSTER—Book-Keeping, 17 times; Writing, 6 times.....23

PROF. KERR—Geometry, 5 times; Plane and Spherical Trigonometry, 4 times; Astronomy, 2 times; Preparation, 2 times.....13

PROF. MILLES—French, 10 times; Latin, 15 times.....25

PROF. RADDATZ—German, 17 times; History, 5 times; Preparation, once.....23

PROF. MAUPIN—Latin, 22 times; Preparation, once.....23

PROF. CLARKE—Nat. Philosophy, 15 times; Chemistry, 6 times.....21

PROF. WIGHT—English, 17 times; Rhetoric, 4 times; Composition, once; Preparation, once.....23

PROF. PREECE—Drawing, 15 times.....15

PROF. HAMILTON—Algebra, 16 times; Arithmetic, 5 times; Composition, 2 times.....23

PROF. THAYER—Physics, 5 times; Preparation, 9 times.....14

MR. NORRIS—Arithmetic, 8 times; History, 8 times; composition, 5 times; English, 2 times.....23

MR. GORDON—Latin, 10 times; Physiology, 12 times; Proparation, 3 times.....25

———:o:———

II. RECITATIONS MADE EACH WEEK BY THE RESPECTIVE CLASSES.

J CLASS—Greek, 4 times; English, once; Astronomy, once; Chemistry 3 times; French, 4 times; German, 2 times; Calculus, 3 times; Preparation, 3 times; Mental and Moral Science, 2 times.....25

I CLASS—Greek, 4 times; Latin, 4 times; Analytical Geometry, 4 times; Constitution U. S., once; Astronomy, once; French, 2 times; German, 2 times; Chemistry, 3 times; English, 2 times; Preparation, 2 times..25

H CLASS—Latin, 4 times; Greek, 4 times; Trigonometry, 4 times; French, 3 times; German, 2 times; Nat. Philosophy, 3 times; Rhetoric, 2 times; Drawing, once; Preparation, 2 times.....25

H^2 CLASS—Same as H^1.....25

G CLASS—Latin, 5 times; Geometry, 5 times; German, 3 times; History 2 times; Nat. Philosophy, 3 times; English, 2 times; Drawing 2 times; Book-Keeping, 2 times; preparation, once.....25

F CLASS—Same as G.....25

E CLASS—Same as G.....25

D CLASS—Latin, 5 times; History, 2 times; Arithmetic, 2 times; Physiology, 3 times; Algebra, 4 times; Drawing, 2 times; Book-Keeping, 2 times; Writing, once; Composition, once; English, 2 times; Preparation, once.....25

C CLASS—Same as D.....25

B CLASS—Same as D.....25

A CLASS—Same as D.....25

A^2 CLASS—Arithmetic, 5 times; Physics, 5 times; English, 2 times; Composition, once; Physiology, 3 times; Drawing, 2 times; Book-Keeping, 3 times; Writing, 2 times; History, 2 times.....25

REPORT OF THE PRINCIPAL

OF THE

Eastern Female High School.

WITH

ACCOMPANYING PAPERS,

FOR THE YEAR 1877.

COMMITTEE

ON THE

Female High Schools.

JOHN P. POE,

GEO. L. HAMEL,

H. B. ROEMER,

WM. M. IVES,

W. W. MURRAY,

WM. C. ATKINSON,

JOHN T. MORRIS, *ex-officio.*

Faculty of the Eastern Female High School.

W. F. WARDENBURG,
Astronomy, Chemistry, Moral Philosophy, Mental Philosophy, Trigonometry.

ELIZABETH A. BAER,
Rhetoric, Elocution, Composition.

PHEBE J. TOMPKINS,
Arithmetic.

SARAH L. BASSFORD,
History, Composition, Rhetoric, Book-keeping.

MARY C. GEDDES,
Algebra, Geometry.

LAURA V. DEVALIN,
Physiology, English Literature, Composition.

ELIZA E. NICOLAI,
Etymology, Natural Philosophy, Composition.

LAURA M. MULLIN,
Drawing.

HENRIETTA J. BREWER,
Algebra, History.

LOUISA BROWNING,
Grammar, Composition, Literature.

AMANDA DUBRIEUL,
AUGUSTINE LECOURT,
French.

J. H. ROSEWALD,
Vocal Music.

GRADUATES

OF 1877.

Atkinson, Annie M.
Bartgis, Florence S.
Bromwell, Sophia I.
Brooks, Anna M.
Bishop, Clara D.
Blackman, Marion L.
Castleberg, Miriam
Coggins, Mary E.
Copenhaver, Caroline
Davis, Kate H.
Dahle, Margaret A.
Denson, Mary A.
Dickerson, Florence P.
Diggs, Clara V.
Earp, Minnie A.
Fatherly, Ida
Frank, Martha L.
Gibney, Mary R.
Gillen, Gertrude H.
Greenwood, Pamelia S.
Hupp, Johanna D.
Heindle, Clara
Heilner, Kate
Herman, Clara
Klinefelter, Fannie
Linthicum, Rebecca C.
McCormick, Emma
McElfresh, Kate A.
New, Emma E.
Philips, Julia H.
Seibert, Ella V.
Senderling, Annetta M.
Taylor, Charlotte J.
Taylor, Annie E.
Tongue, Elsie
Ward, Annie
White, Marga
Wightman, Clara

Recipients of the Peabody Medals.

FIRST GRADE.

—:o:—

CLARA V. DIGGS,
MARY A. DENSON,
KATE McELFRESH,
ANNIE WARD,
MARTHA L. FRANK.

SECOND GRADE.

—:o:—

ANNIE M. ATKINSON,
CLARA HERMAN,
MARGARET A. DAHLE,
CHARLOTTE J. TAYLOR,
CLARA HEINDLE,
EMMA E. NEW,
FLORENCE T. BARTGIS,
FANNIE KLINEFELTER,
ELSIE TONGUE,
ELLA V. SEIBERT.

The fifteen preceding are recipients also of a full membership Maryland Institute Ticket for one year.

ADDITIONAL RECIPIENTS

OF THE

Peabody Lecture Tickets.

Awarded to the Twenty-Five Highest.

KATE H. DAVIS,
SOPHIA J. BROMWELL,
MARY E. COGGINS
ANNA M. BROOKS,
MIRIAM CASTELBERG,
MINNIE A. EARP,
CLARA D. BISHOP,
MARION L. BLACKMAN,
EMMA McCORMICK,
MARY R. GIBNEY.

REPORT

OF THE

Principal of Eastern Female High School.

BALTIMORE, December 31, 1877.

To the Commissioners of Public Schools:

GENTLEMEN:

In compliance with the rules of the board, I submit the annual report of the Eastern Female High School for the year ending Dec. 31, 1877.

The following statement shows the number of pupils in attendance during the term ending July 3, 1877; also the number admitted and withdrawn since that time:

Attending July 3, 1877	256
Graduated or discontinued from July 3 to September 3	89
Remaining	167
Admitted September 3	127
Never attended	12
Attending Nov. 20	282
Discontinued from Nov. 20 to Dec. 31	16
On Roll Dec. 31, 1877	266

The average attendance during the year was about 89 per cent.

In the short time that I have been principal of the school, I have seen much to commend. The teaching is not confined to the mere matter of hearing recitations; the subjects are carefully analyzed, and the text-book is supplemented by research and illustration. Much time is also spent in cultivating the judgment, and in implanting the principles of judicious criticism. Important modifications in our schedule were made last summer; and the standard of excellence in scholarship at which we are aiming, will probably suggest further changes in the future.

The special average introduced last year is having its legitimate effect in elevating the grade of the school, while, for the present, reducing the number on roll. It would be well for parents and teachers to be sure that those who apply for admission to the High Schools are not only prepared to enter, but are physically and mentally able to pursue to successful completion the course of study prescribed for those schools.

The deportment of the pupils is excellent; they are respectful and obedient to their teachers, and civil and courteous to each other.

The school needs chemical and philosophical apparatus. We have not at present the necessary appliances for the most ordinary illustrations, and without such illustrations the study of the Physical sciences loses both point and interest.

Reference books are also required. The importance of such books to any school, but particularly to the High Schools, cannot be overestimated. They furnish the matter necessary to supplement the text-book, and afford the pupils the means of investigating subjects not directly connected with the school work.

I take this opportunity of expressing my thanks to Prof. N. H. Thayer for his aid in organizing the classes, and for infor-

mation in regard to the clerical work of the school; also to my assistants for their kind and cordial support.

I am also under obligations to the officers and members of the Board, especially to the Committee on High Schools.

Respectfully submitted,

W. F. WARDENBURG.

COURSE OF STUDY.

FIRST YEAR.

Etymology,
English Grammar,
Elocution,
History,
French,
Physiology,
Arithmetic,
Algebra,
Composition,
Vocal Music,
Drawing.

SECOND YEAR.

Rhetoric,
Elocution,
Arithmetic,
Algebra,
Natural Philosophy,
Drawing,
Vocal Music,
Composition,
French,

THIRD YEAR.

History,
Rhetoric,
Elocution,
French,
Algebra,
Astronomy,
Geometry,
Composition,
Drawing,
Vocal Music.

FOURTH YEAR.

Grammar,
Arithmetic,
Moral and Mental Philosophy,
Book-Keeping,
Chemistry,
English Literature,
Composition,
French,
Drawing,
Vocal Music,
Trigonometry,
Elocution.

WEEKLY RECITATIONS IN THE EASTERN FEMALE HIGH SCHOOL.

Sep. July 1877——1878	W. F. Wardenburg	E. A. Baer	S. L Bassford	P. J. Tompkins	L. V. DeValin	L. M. Mullin	L Browning	H. J. Brewer	M. C. Gaddes	E. E. Nicolai	A. Dubrieul	A. Lecourt	J. H. Rosewald
Monday....	Super. *I* Ast. *H* " *K L M.* Ph. *K L* Chem.	*K L* Elo. *H* " *I* " Comp. *H* Comp.	*H* Hist. *K B* Keep. *L* " *I* Hist. *G* Rhet.	*E* Arith. *L* " *G* " *F* " *D* "	*D* Phys. *A* " *B* " *E* " Comp.	*F* Draw. *C* " *D* " *G* " *A* "	*G* Lit. *F* " *K* Gram. *B* " *E* Lit.	*C* Hist. *D* " *A* " *C* Alg. *B* Hist.	*I* Geom. *E* Alg. *F* " *H* Geom. *I* Alg.	*B* Ety. *G* Phil. *E* " *A* Ety. *C* "		*A* French. *B* " *C* " *D* " *F* "	
Tuesday....	Super. *K L* Chem *L* Trig *K* " Super.	*L* Comp. Comp. *I* Rhet. Comp. H. Rhet.	*I* Comp. Comp. *K B* Keep. *E* Rhet. *F* "	*F* Arith. *E* " *A* " *D* " *B* "	Comp *A* Phys. *B* " C " *E* Comp	*G* Draw. *H* " *B* Draw. *C* "	Comp. *D* Gram. Comp. *C* Gram. *A* "	*C* Hist. *B* " *D* " Comp. *A* Hist.	*H* Geom. *I* " *F* Alg. *G* "	*E* Phil. *F* " Comp. *G* Phil. *D* Ety	*K* French. *G* " *H* " *L* " *I* "		*A B* Music. *C D* " *E F G* " *H I* " *K L* "
Wednesday	Super. *H I* Ast. *K* M. Ph. Super. *E F G* Exp	*K L* Comp. Comp. *I* Rhet. *K L* Elo. *I* Comp	*H* Hist. *E* Rhet. *L B* Keep. *H* Comp. Comp.	*C* Arith. *K* " *G* " *F* " *D* "	*A* Phys. *D* " *B* " *C* " *L* Lit.	*B* Draw. *L* " *F* " *I* " *K* "	*G* Lit. *F* " *D* Gram *B* " *C* "	*D* Alg. *C* Hist. *A* Alg. *A* Hist. *B* Alg.	*I* Geom. *G* Alg. *H* Geom. *E* Alg. *H* "	*F* Phil. *A* Ety. *E* Phil. *G* " Comp.		*E* French. *B* " *C* " *D* " *A* "	
Thursday ..	*K* Trig. *L* " *K L* M. Ph. *H I* Ast. *K L* Chem.	*A* Elo. *D* " *G* " *F* " *B* "	*I* Hist. *F* Comp. Comp. *G* Rhet. *F* "	*B* Arith. *A* " *E* " *C* " *G* "	*D* Phys. *C* " *B* " *K* Lit. *A* Phys.	*L* Draw. *E* " *I* " *A* "	*E* Lit. *H* " *A* Gram. *D* Comp. *C* "	*C* Alg. *B* " *D* " *B* Hist. *D* "	*H* Mens. *I* " *F* Alg. *E* " *H* "	*F* Phil. *G* Comp. *C* Ety. Comp. *E* Phil.	*G* French. *K* " *H* " *L* " *I* "		
Friday	Super. *I* Ast. Super. *L* M. Ph. *H* Ast.	*H* Rhet. *K* Comp. *C* Elo. Comp. *E* Elo.	*F* Comp. *E* Rhet Comp. *F* Rhet. *G* "	*L* Arith. *A* " *K* " *B* " *C* "	*C* Phys. *L* Lit. *D* Phys. *K* Lit. Comp.	*K* Draw. *H* Draw. *E* " *D* "	Comp. *I* Lit. *L* Gram. *A* Comp *B* "	*D* Hist. *B* " *A* " *C* " *A* Alg.	*I* Alg. *H* " *G* Alg. *I* "	*G* Phil. *G* Comp. *B* Ety. *D* " *F* Phil.		*E* French. *F* "	*A B* Music. *C D* " *E F G* " *H I* " *K L* "

REPORT OF THE PRINCIPAL

OF THE

Western Female High School.

WITH

ACCOMPANYING PAPERS,

FOR THE YEAR 1877.

COMMITTEE

ON THE

Female High Schools.

JOHN P. POE,

GEO. L. HAMEL,

H. B. ROEMER,

WM. M. IVES,

WM. C. ATKINSON,

W. W. MURRAY, M. D.

JOHN T. MORRIS, *ex-officio.*

HENRY E. SHEPHERD, *Superintendent.*

Faculty of the Western Female High School.

D. A. HOLLINGSHEAD, A. M., *Principal,*

Astronomy, Chemistry, Mental and Moral Philosophy, Trigonometry and Experiments in Natural Philosophy.

P. A. HARTMAN,

English Literature, Rhetoric, History, Composition,

S. S. RICE,

Rhetoric, Elocution, Etymology, Grammar, Composition.

J. S. WILLIAMS,

Algebra, and Composition.

EMMA COWMAN,

Rhetoric, Physiology, Etymology, Composition.

H. C. ADAMS,

History and English Literature,

L. C. SAUMENIG,

Geometry, Book-keeping, Physiology, Arithmetic.

I. HAMPSON,

Natural Philosophy, Algebra, Composition.

A. P. WISE,

Arithmetic

L. D. BRIAN,

Grammar, Etymology, Astronomy, Composition.

E. J. DAVIS,

Drawing.

MAD. DUBREUIL & MAD. LECOURT,

French.

J. H. DEEMS,

Music.

Graduates Receiving Peabody Medals.

FIRST GRADE.

Miss HENRIETTA SZOLD,
" ADA SPENCER,
" LILLIE SLOTHOWER,
" KATE CROMWELL,
" ALICE LEDLEY.

SECOND GRADE.

Miss NANNIE DOUTY,
" CARRIE HEWETT,
" JESSIE SEWELL,
" FANNIE THOMAS,
" MARY ZERWICK,

Miss CARRIE SUMWALT,
" SUSIE MACY,
" IRENE EICHELBERGER,
" IMOGEN GEORGE,
" KATE McVEIGH.

:o:

Additional Number Receiving Tickets to Lectures Peabody Institute.

Miss SALLIE LOWENBACH,
" LAVINIA GRIM,
" VIOLA KALTENBACH,
" SADIE BLADES,
" SADIE TRAINOR,

Miss GEORGIA HOBBS,
" MATTIE SKINNER,
" ELLA LEESON,
" CARRIE SNYDER,
" EDITH THORNTON.

Misses Davis and Gwynn were, by Merit Standing, entitled to a Peabody Medal, but not having consecutively completed the full Course of Study, could not compete for them or the Peabody Tickets.

Names of Graduates with their Theses.

Sadie Blades.....*Silent Changes*
Fannie Byrd.....*The House We Live In*
Abbie Brawner.....*English Dramatic Literature*
Katie R. Cromwell.....*English Prose Fiction*
Mary Cassell.....*Hidden Gems*
Fannie C. Davis.....*Activity, the Law of the Universe*
Nannie C. Douty.....*Out of the Old House into the New*
Bettie Dobler.....*The Present, the Past and the Future*
M. Irene Eichelberger.....*Music*
Maggie E. Fawcett.....*Home Influence*
Mary Fillinger.....*Poetry*
Fannie M. Ford.....*Foundations*
Imogen George.....*Modern Mythology*
Lizzie Garitee.....*Homes of Genius*
M. Grace Gwynn.....*Renaissance*
Lavinia Grim.....*The Voyage of Life*
Georgia Hobbs.....*Literature*
Vara M. Hoblitzel.....*The Love of Poetry*
Carie W. Hewitt.....*Valedictory*
M. Kate Jones.....*Ancient and Modern Civilization*
Viola L. Kaltenbach.....*Imagination*
Ella Leeson.....*Exterior and Interior*
Alice O. Ledley.....*Character*
Sallie Lowenbach.....*Historic Nights*
Bettie S. Le Cato.....*The Insignificance of the Earth*
Annie E. Loane.....*Rain—Its uses*
Alice Markell.....*Montenegro*
Sallie McBride.....*Comus*
Susie Macy.....*Portia*
Luella May.....*The Harmony and Beauty of Nature*
Katie Q. McVeigh.....*Unappreciated*
Louisa Maurer.....*The Terrestial Sphere*
Mattie M. Skinner.....*Moral and Material Progress of the Nations*
Ada M. Spencer.....*Idols of the Mind*
Bessie Smyth.....*Mirrors*
Luly Sellman Shipley.....*The Influence of the Fine Arts*
Lillie Slothower.....*Salutatory*
Jessie L. Sewell.....*Absolute Truth*
Carrie Snyder.....*In Futuro*
Henrietta Szold.....*Our Public Schools*
Carrie M. Sumwalt.....*Aim of Life*
Antonia Sondershof.....*Facts and Fancies*
Sadie Trainor.....*Great Discoverers and Great Men in Literature*
Katie Taylor.....*Time at His Easel*
Fannie O. Thomas.....*The Rank is but the Guinea's Stamp*
Edith Powell Thornton.....*Education, the Chief Source of Knowledge*
Clara J. Wagner.....*Beauty*
Mary C. Zerweck.....*Life a Mysterious Agent*

REPORT

OF THE

Principal of Western Female High School.

BALTIMORE, December 31, 1877.

To the Board of Public School Commissioners:

GENTLEMEN:

I herewith submit for your consideration the thirty-second Annual Report of this Institution.

During the past year, our general attendance was not quite as good as that of the preceding year; but this was owing mainly, to the increased number of cases of protracted sickness either personal or in the family, especially during the past two months.

While the general progress of our pupils has been very satisfactory, it is, however, to be greatly regretted that a number, in consequence of irregular attendance, have failed to attain a good scholastic standing, and without redoubled diligence on their part, in future, in view of our system of special averages they will not be entitled to promotion at the close of the session.

Notwithstanding the enforcement of the regular standard of examination for admission, some have entered who are neither mentally nor physically able to prosecute successfully the High School course of study, and it would have been much better for them to have remained longer in the Grammar Schools.

In consequence of failing health, sickness and death of parents, and other unavoidable causes, twenty pupils have left school since our opening in September, and during the present week, Miss Mattie Cowman, a most interesting and promising pupil of the second year, has been withdrawn by death from the busy scenes of earth, and, we trust, transplanted to a fairer and more enduring clime. We deeply sympathize with her parents and friends in their sad bereavement.

The general deportment of our pupils deserves commendation, and their uniformly courteous intercourse with each other is an exceedingly pleasant feature of school life, and one to which they will, doubtless, in future years, refer with fond remembrances. In this connection, I desire to bear testimony to the faithful and earnest efforts of the teachers associated with me to render their respective departments, in the highest degree, efficient.

Our twenty-fifth Annual Commencement was held in "Ford's Grand Opera House," June 28th, in the presence of a large and intelligent audience, consisting of the friends of the Graduates, and other friends of popular education. We have every reason to believe that the exercises on the occasion gave general satisfaction. Hon. F. C. Latrobe, Mayor of the City, awarded the usual Certificates of Scholarship to forty-eight young ladies, who had satisfactorily completed their full course of study.

Prof. Uhler distributed the Peabody Medals to those entitled to receive them.

J. M. Carter, Pres. Md. Institute, in like manner, presented tickets of free admission to the lectures of the Institute and to the use of its Library.

At our opening in September the School was constituted as follows, viz:

Former pupils returned	236
Of those admitted at the Annual and Special Examinations that claimed their seats	191
Aggregate	427

In addition to the withdrawals already named, one was transferred, on account of a removal of her residence, to the Eastern Female High School, leaving on roll at the present date 405 pupils.

Some changes have been made in our Curriculum by which the number of studies in the hands of the pupils during each year has been decreased and the time allotted to each study increased, and more attention is paid to English Literature and Composition. How far these changes may prove beneficial in their practical results, we are not yet able to state, as the period during which they have been tested has been too short to enable us to form a definite opinion; the impression at present, however, is favorable to the new arrangement.

In our last Annual Report, we urged the absolute necessity for an addition to our Chemical and Philosophical Apparatus, in view of the interests involved. We again refer to the matter with increased earnestness, and sincerely hope that the Board may, during the present session, furnish us with such apparatus as will enable us to give proper illustrations in Physics and Chemistry, which, with the present supply, it is utterly impossible to do.

I had hoped ere this that some adequate arrangement would have been made to carry off the noxious gases frequently produced in performing experiments, as the attention of the members of the Committee on proper ventilation was called to the matter during the past session, and they expressed their decided opinion as to the necessity for such an arrangement.

Your attention is *again called* to the want of sufficient class-room accommodations, which is a serious drawback to those whom it effects. The Committee on Female High Schools, we feel assured, will bear us out in urging the necessity of providing, at least, two additional class-rooms.

The insufficiency of light in several of our class-rooms on dark and cloudy days compels me again to refer to the matter. It is impossible frequently on such days for either teacher or pupils, without the most strenuous efforts, to read or attend to any regular work in consequence of the want of light in those rooms. Serious consequences must follow a failure to remedy this difficulty, which can only be done by the introduction of gas. I may say in this connection that several pupils have already been withdrawn from school on account of weak eyes, and certainly whatever tends to increase the trouble in the school-room should, as far as possible, be removed.

Before closing this report, allow me to tender my acknowledgment to the Board and it sofficers for their uniform courtesy extended to me in my official relations to them.

To the Committee on Female High Schools, for the deep interest they have ever manifested in the daily work of the school, and in the comfort of both teachers and pupils, we offer our sincere thanks.

In conclusion, your attention is called to the accompanying papers, which contain important information in tabular form that could not be presented as well in any other way.

With great respect,

Yonrs truly,

D. A. HOLLINGSHEAD.

SUMMARY

Of Annual and Special Examinations for 1877.

GRAMMAR, PRIVATE AND ENGLISH-GERMAN SCHOOLS.	Examined.	Admitted.
No. 1	47	41
" 4	16	16
" 6	27	27
" 8	22	17
" 9	16	12
" 10	25	19
" 12	12	11
" 15	23	16
" 18	19	14
" 19	16	15
" 21	33	33
" 1 English-German Schools	2	1
" 2 " " "	1	0
Private Schools	12	1
	271	223

RECITATIONS

OF THE

Western Female High School.

RECITATIONS HEARD EACH WEEK BY THE DIFFERENT TEACHERS.

PROF. HOLLINGSHEAD—Trigonometry 3 times; Astronomy 5; Mental Philosophy 4; Moral Philosophy 1; Chemistry 4; Experiments in Natural Philosophy 1.....18

MISS HARTMAN—English Literature 8; Rhetoric 3; History 4; Composition 5; Ex. Written Composition 5.....25

MISS RICE—Rhetoric 4; Grammar 2; Elocution 13; Etymology 2; Composition 2; Ex. Written Composition 2.....25

MISS WILLIAMS—Algebra 20; Composition 2; Ex. Comp. 3.....25

MISS COWMAN—Physiology 12; Rhetoric 6; Comp. 2; Etymology 2; Ex. Comp. 3.....25

MISS ADAMS—History 20; Literature 4.....24

MISS SAUMENIG—Geometry 6; Mensuration 2; Book-Keeping 4; Physiology 8; Arithmetic 3; Recording 2.....25

MISS HAMPSON—Nat. Philosophy 12; Algebra 4; Composition 3; Ex. Comp. 6.....25

MISS WISE—Arithmetic 25.....25

MISS BRIAN—Grammar 10; Etymology 6; Astronomy 2; Comp. 2; Ex. Comp 5.....25

MISS DAVIS—Drawing.....24

MADAM DUBREUIL—French.....12

MADAM LECOURT—French.....12

MR. DEEMS—Music.....10

CLASS RECITATIONS.

RECITATIONS MADE EACH WEEK BY THE DIFFERENT CLASSES.

L^1 AND L^2 —Mental Philosophy 2; Moral Philosophy 1; Trigonometry 2; Chemistry 3; English Literature 2; Grammar 1; Elocution 2; Book-Keeping 2; Arithmetic 2; Drawing 2; French 2; Music 2; Composition 2.

I AND K—Astronomy 4; English Literature 1; Rhetoric 2; Elocution 1; Algebra 3; History 2; Geometry 3; Mensuration 1; Drawing 2; French 2; Music 2; Composition 2.

F. G. AND H—Rhetoric 3; Literature 2; Elocution 1; Algebra 3; Arithmetic 3; Natural Philosophy 4; Experiments 1; Drawing 2; French 2; Music 2; Composition 2.

A, B, C, D AND E—Physiology 4; History 4; Etymology 2; Grammar 2; Composition 1; Arithmetic 3; Algebra 3; Drawing 2; French 2; Music 2.

L^1 AND L^2.....Fourth Year Classes.
I AND K.....Third " "
F, G AND H.....Second " "
A, B, C, D AND E.....First " "

GRADES FOR PRIMARY SCHOOLS.

FIFTH GRADE.

Alphabet Class—Alphabet from black-board or chart. Count by ones and twos to 100. Numeration and Notation as far as 100. Addition table to 100.

Primer Class—Spelling from first half of First Reader and black-board.

Reading—First half of First Reader. Teach use of period. Endeavor to get the pupils to read with attention. This can be tested by questioning or requiring them to relate in their own language what is said in the lesson. From the beginning inculcate habits of correct speaking. *Principals are requested not to permit any pupil in any grade "to pass" in reading who is not proficient.*

Arithmetic—Notation and Numeration as far as 500. Add, in columns of two figures, five, six and seven lines. Do not confine attention to abstract numbers simply, but vary the exercises with easy practical examples.

Mental Arithmetic—Count by ones, twos and threes to 100. Solve easy practical examples.

Penmanship—Elements and principles of small letters.

Vocal Music—As prescribed for the grade.

Drawing—As prescribed for the grade. Use slates.

FOURTH GRADE.

Spelling—Words of one syllable to be taken from the grade in reading.

Reading—Second half of First Reader and Review. Teach names of comma, semicolon, colon and period. Observe carefully directions for Fifth Grade.

Arithmetic—Numeration and Notation through numbers containing five figures. Add in columns of five figures, five, six, seven and eight lines.

Observe carefully directions for Fifth Grade.

Mental Arithmetic—Count by threes, fours, fives, sixes, and sevens. Solve easy practical examples.

Penmanship—Thirteen short letters. Use slates.

Music—As prescribed for the grade.

Drawing—As prescribed for the grade. Use slates.

THIRD GRADE.

Spelling—Words of one and two syllables to be taken from the grade in reading.

Reading—Second Reader to page 64. Continue the instruction in punctuation. Observe carefully the directions for Fifth Grade.

Arithmetic—Numeration and Notation through numbers containing seven figures. Addition, Subtraction, and Multiplication by one figure. In Addition use five and six figures of eight and ten lines. In Subtraction use small examples, and make the operation well understood. Multiplication table through 9 x 12. Observe carefully directions for Fifth Grade.

Mental Arithmetic—Subtract any single number from any double number less than fifty. Count by sixes, sevens, eights and nines. Practice in easy practical examples involving the rules which have been taught.

Penmanship—Stem and loop letters. Use slates.

Music—As prescribed for the grade.

Drawing—As prescribed for the grade. Use slates.

SECOND GRADE.

Spelling—Words of one and two syllables taken from the grade in reading.

Reading—Finish Second Reader. Continue the instruction in punctuation. Observe carefully directions for Fifth Grade.

Arithmetic—Numeration and Notation through numbers containing nine figures. Addition, Subtraction, Multiplication, and Division by one figure. Multiplication table through 12 x 12. Observe carefully directions for Fifth Grade.

Mental Arithmetic—Keep up what has been taught in preceding grades. Practice the pupils in easy practical examples involving the rules which have been taught.

Penmanship—No. 2 Primary Course. No examination required in capitals.

Drawing—As prescribed for the grade. Use slates and cards.

Music—As prescribed for the grade.

FIRST GRADE.

Spelling—Words of one, two and three syllables, taken from the grade in reading.

Reading—Third Reader to page 119. Continue the instruction in punctuation. Observe carefully directions for Fifth Grade. In this grade the pupil may be required occasionally to write in his own language what is said in the lesson.

Arithmetic—Numeration, Notation, Addition, Subtraction, Multiplication, Short Division, and Long Division with four figures for a divisor. Solve easy practical examples, involving these rules. Observe directions for Fifth Grade.

Mental Arithmetic—Keep up what has been taught in the preceding grades, and vary these exercises with easy practical examples, involving the rules taught.

Geography—Teach from the Outline Maps of the Hemispheres and the black-board the natural divisions of land and water, the continents, the grand divisions, the oceans, and the cardinal points of the compass. No books needed.

Penmanship—No. 2 Primary Course. No examination required in capitals.

Music—As prescribed for the grade.

Drawing—As prescribed for the grade. Use slates and cards.

Grades for Male Grammar Schools.

FIFTH GRADE.

Spelling—To page 15, inclusive. Assign short lessons. Require frequent exercises in sentence making, in order to illustrate the use and meaning of words in the grade. This exercise will serve as an introduction to composition. The words selected for these exercises should be easy and simple, and the sentences short.

Reading—Third Reader. Pay strict attention to enunciation, pronunciation, punctuation, and the definition of words. Be careful to see that the pupils understand what they read. This can be tested by requiring them to translate into their own language, grammatically, the story or incident that is the subject of the lesson. Careful examination in reading. Read daily. Principals are requested not to mark as passed any pupil, in any grade, who is not proficient in reading.

Arithmetic—Prime and Composite Numbers, Prime Factors, Cancellation, Greatest Common Divisor, and Least Common Multiple. Require the pupils to solve *easy* examples in these subjects, and vary the exercises with practical examples involving the four fundamental rules of arithmetic. At least half the time assigned to Arithmetic should be given to the latter kind of work.

Definitions—As far as page 74.

Mental Arithmetic—To correspond with Written Arithmetic.

Geography—*Cornell's Primary* to page 35, inclusive. Exercises on the Maps of the Hemispheres, and other Maps within the grade. Omit Lessons 61 and 62, page 52.

Grammar—Oral instruction on the Noun, Adjective and Pronoun. Require the pupil to point out these parts of speech in the reading lesson.

Dictation exercises and sentence making should be considered exercises in Grammar and Writing. Endeavor from the beginning to inculcate habits of correct speaking.

Penmanship—Small letters of No. 3.

Drawing—As prescribed for the grade.

Music—As prescribed for the grade.

Compostion—Once in two weeks.

FOURTH GRADE.

Spelling—To page 30, inclusive. Observe directions for Fifth grade.

Reading—Fourth Reader. Observe directions for Fifth grade. Read daily. Careful examination in reading.

Arithmetic—From 74 to 99, inclusive. Review preceding grade. The examination will not contain very difficult examples in fractions, and any correct method of working them will be satisfactory. Vary the exercises with practical examples involving the rules which have been taught. Instruct the pupils to handle numbers with accuracy and facility.

Definitions—As far as Written Arithmetic.

Mental Arithmetic—To correspond with Written Arithmetic.

Geography—*Cornell's Primary*, from 74 to 95, inclusive. Frequent exercises upon the Outline Maps.

Grammar—Large print from page 34 to "Properties of Verbs," on page 70, omitting "Orthography," "Classes of Adjectives," "Classes of Pronouns," and "The Formation of Comparatives and Superlatives." Parse selections from the book. Observe directions for Fifth grade.

Penmanship.—Letters containing the seventh principle, and the same principle incorporated into words.

Drawing—As prescribed for the grade.

Music—As prescribed for the grade.

Composition—Once in two weeks.

THIRD GRADE.

Spelling—To page 45, inclusive. Observe directions for Fifth grade. Direct attention carefully to what is said in the Grammar under the head of "Orthography."

Reading—Fourth Reader. Observe directions for Fifth grade. Read daily. Careful examination in reading.

Arithmetic—From page 100 to 140, inclusive, omitting "Circulating Decimals." Vary the exercises with practical examples involving the rules which have been taught. Review the preceding grades.

Definitions—As far as written arithmetic.

Mental Arithmetic—To correspond with Written Arithmetic.

Geography—*Cornell's Intermediate*, to page 24, omitting Lessons 10, 11, 12, 13, 17, 18 and 19. Teach the text of the Descriptive Geography as a reading lesson. Exercise frequently upon the Outline Maps.

Grammar—Large print from page 34 to page 100, inclusive, omitting "Orthography." Observe directions for Fifth Grade. Parse selections from the book and the reader.

Composition—Once in two weeks.

Penmanship—Letters containing the eighth and ninth principles and their accompanying words.

Drawing—As prescribed for the grade.

Music—As prescribed for the grade.

SECOND GRADE.

Spelling—To page 60, inclusive. Observe directions for Fifth grade. Direct attention carefully to what is said in the Grammar under the head of "Orthography."

Reading—Fifth Reader. Observe directions for Fifth grade. Careful examination in reading. Read daily.

Arithmetic—From page 141 to section 304, omitting "Longitude and Time." Review the preceding grades, and vary the exercises with practical examples involving the rules which have been taught.

Definitions—As far as Written Arithmetic.

Mental Arithmetic—To correspond with Written Arithmetic.

Geography—*Cornell's Intermediate*, to page 53, inclusive, omitting Lessons 24, 25, 26, 28, 29, 30, 32, 33, 34, 35, 37, 38, 39, 40, 42, 43, 44, 45, 61, 63, 64, 65, 66. Prepare Lesson 47. Use the text of the Descriptive Geography as a reading lesson. Exercise the class frequently upon the Outline Maps. Teach the boundaries of States and Territories.

Grammar—From page 34 to 100, large and small print, omitting "Orthography." The pupils need not commit to memory the list of adverbs, conjunctions and prepositions. They should be taught to distinguish and apply them rather than to memorize them. Parse selections from the book and the reader. Observe directions for Fifth grade.

Algebra—To page 46, section 80.

Definitions in Algebra—To page 46, section 80.

Penmanship—First half of No. 4.

Drawing—As prescribed for the grade.

Music—As prescribed for the grade.

Composition—Once in two weeks.

FIRST GRADE.

Spelling—To page 75, inclusive. Observe directions for Fifth grade. Direct attention carefully to what is said in the Grammar under the head of Orthography.

Reading—Sixth Reader twice and U. S. History once a week. Explain principal events in the History of the U. S.

History of Maryland (Onderdonk's Revised Edition), three times a week.

Arithmetic—Teach the entire book; but the questions for the examination will be selected from the subjects taught in the preceding grades as well as the following: Percentage, Profit and Loss, Simple Interest, Discount, Bank Discount, Commission, Insurance, Simple and Compound Proportion, Analysis, and Square Root with application. Give to the other subjects as much time as in the judgment of the Principal can be allowed to them in proportion to their importance.

Definitions—As far as Written Arithmetic.

Mental Arithmetic—To correspond with Written Arithmetic.

Geography—Lessons 76, 77, 78, 79, 80, 81, 82, 83, 92, 93, 100, 109, 115, 122, 123, 124, 125, and Map of Maryland, with questions. Use the text of the Descriptive Geography as a reading lesson. Exercise the class frequently upon the Maps, especially in learning the boundaries, cities, mountains, rivers, population, soil and climate, government, principal productions, and area of the different countries of the world. This should be done, so far as possible, in all the grades. The examinations in Geography will be taken from the limits assigned to the different grades.

Grammar—From page 101 to page 146, omitting pages 110, 112, 113 and 114. Review preceding grades, omitting "Orthography." In composition pay strict attention to punctuation, spelling and the grammatical construction of sentences. Parse selections from the reader and from the classic writers of the English language, both in poetry and prose. Endeavor in every way in all the grades to teach the correct use of language more than technical and formal grammar.

Composition—Assign an exercise once in two weeks. Divide the class into two sections, so that the first shall write one week, and the second the following.

Algebra—To page 134.

Algebra Definitions—To page 134.

Penmanship—Second half of No. 4.

Book-keeping—To be taught during the time formerly alloted to music.

Drawing—As prescribed for the grade.

Grades for Female Grammar Schools.

The 5th, 4th, 3d and 2d grades are the same, except Algebra, as in the Male Grammar Schools.

In first grade, in Arithmetic, teach sections 305, 306, and the following subjects: Percentage, Profit and Loss, Simple Interest, Bank Discount, Proportion and Analysis.

The balance of first grade is the same as in Male Grammar Schools, excepting Algebra and Book-keeping.

CATALOGUE

OF

Books and Stationery

Used in the Public Schools of Baltimore City.

FOR BALTO. CITY COLLEGE.

Gildersleeve's Latin Reader,
" " Primer,
Gildersleeve's Latin Exercise Book,
Gildersleeve's Latin Grammar,
Cæsar (Allen and Greenough,)
Sallust (Chase and Stuart's,)
Cicero's Orations (Anthon's,)
Ovid (Andrew's,)
Virgil (Chase and Stuart's,)
Horace " "
Crooks and Schem's Latin Dictionary,
Bullion's or White's Greek Lessons,
Bullion's or Goodwin's Greek Grammar,
Bullion's or Goodwin's Greek Reader,
Xenophan's Anabasis (Kendrick,)
Herodotus (Johnson's,)
Anthon's Homer's Iliad,
Liddell and Scott's Greek Lexicon,
Adler's German Dictionary,
Progressive German Reader, by G. S. Adler,
Iphigenia and Torquato Tasso, by Goethe,
Otto's German Grammar,
Schiller's Thirty Years' War,

Whitney's German Grammar,
Lessing's Minna Von Barnhelm
Schiller's Neffe als Onkel,
De Fivas' Elementary French Reader,
Value's Ollendorf's French Grammar,
Voltaire's Charles Twelfth,
Davies's Legendre's Geometry,
Loomis's Analytical Geometry,
Loomis's Calculus,
Ray's Surveying,
Ray's New Higher Algebra, (Part Second,)
Lockyer's Astronomy,
Olney's General Geometry and Calculus,
Literature Francaise, M. Chapsal,
Flemming and Tibbin's French Dictionery,
Shepherd's History of the English Language,
Whitney's English Grammar,
Quackenbos's Compositions,
Newell and Creery's Sixth Reader,
Zacho's New Amer. Speaker,
Pinnock's Goldsmith's England,
Bolmar's French Verbs,
Quackenbos's Hist. U. S.,
Smith's History of Greece,
Liddel's History of Rome,
Alexander's Moral Science,
Alden's Science of Government
Haven's or Upham's Mental Philosophy,
Norton's Philosophy,
Barker's Chemistry,
Dana's Geology,
Hutchinson's Physiology,
Webster's High School Dictionary,
Crittenden's Book-Keeping,
Hepburn's Manual of Rhetoric
How to write Letters—Westlake.

For Female High Schools.

Underwood's English Literature,
Surenne's French Pronouncing Dictionary,
Keetel's French Series,
Westlake's English Literature,
Shaw's English Literature,
Boyd's Thomson,
" Milton,
Moral Philosophy (Alden's,)
Coppee's Rhetoric,
Fasquelle's French Reader,
Pinney's French Reader,
Newell and Creery's Fifth Reader,
Newell and Creery' Sixth Reader,
Fewsmith's Large Grammar,
Anderson's Universal History,
Rolfe and Gillet's Chemistry (Small,)
Quackenbos's Composition and Rhetoric,
Cutter's Physiology (Large,)
" " (Small,)
Webster's High School Dictionary,
Upham's Mental Philosophy,
Norton's Natural Philosophy,
Webb's Etymology,

Quackenbos's Arithmetic,
Ray's New Elementary Algebra,
Brooks's Normal Geometry and Trigonometry,
Lockyer's "
Crittenden's Book-Keeping,
Cornell's Physical Geography.

For Grammar Schools.

Crittenden's Elementary Book-Keeping,
Newell and Creery's Third Reader,
Newell and Creery's Fourth Reader,
Newell and Creery's Fifth Reader,
Newell and Creery's Sixth Reader,
Creery's Gram. School Spelling Book,
Swinton's Language Primer,
Creery's Catechism of the History of the United States, with questions on the Constitution of the United States and Maryland,
Cornell's Primary Geography,
" Intermediate Geography (Maryland Edition,)
Quackenbos's Practical Normal Primary Arithmetic,
Quackenbos's Mental Arithmetic,
Quackenbos's First Lessons in Composition,
Quackenbos's U. S. History,
Webster's School Dictionary,
Webster's Unabridged Dictionary,
Lippincott's Gazetteer,
Fewsmith's English Grammar (Small,)
Ray's New Elementary Algebra (Male Schools,)
Bibles (12mo., sheep,)
Douay Bibles (12mo., sheep,)
Payson, Dutton and Scribner's System of Penmanship,
McSherry's History of Maryland, abridged by Onderdonk
The Gem, a selection of Songs for Grammar and Pimary Schools,
Walter Smith's System of Drawing.

English-German Schools.

Dr. Otto's First Book in German,
Dr. Otto's Beginning of German,
Dr. Otto's Introductory Reader, by Prof. E. S. Joynes (in two parts.)

For Primary School.

Newell and Creery's First Reader,
Newell and Creery's Second Reader,
Newell and Creery's Third Reader,

Creery's Illustrated Primary School Spelling Book, with exercises in Arithmetic,
Webster's Primary Dictionary,
Webster's National Pictorial Dictionary,
Cornell's Primary Geography,
Cornell's First Steps in Geography,
Spelling and Alphabet Cards,
Bibles and Testaments,
" " Douay,
The Gem,
Quackenbos's Primary Arithmetic,
Walter Smith's System of Drawing.

Stationery for all the Schools.

Platner and Porter's Cap Paper—good quality.
Note Paper.
White Envelopes—good quality.
Buff Envelopes—good quality.
Mucilage,
Ink-Wells—with covers.
German Slate Pencils.
Soap-Stone Slate Pencils.
Lead Pencils (Faber's.)
Pen Holders.
Pencil Holders.
Principals' Gongs.
Assistants's Gongs.
Slates—good quality—Wired—Round Corners—6½ by 9.
Slates—good quality—Wired—Round Corners—8 by 12.
Slates—good quality—Wired—Round Corners—8½ by 12½.
Drawing Slates.
Black-Board Rubbers.
Teachers' Ink Stands, with Racks.
Chalk Crayons.
Excelsior Copy Books.
Copy Book Covers.
Composition Books.
Teachers' Roll Books.
Principals' Registers.
Pelton's Outline Map of the U. S.—(Muslin Mounted.)
Pelton's Outline Map of the E. H.—(Muslin Mounted.)
Pelton's Outline Map of the W. H.—(Muslin Mounted.)
Pelton's Outline Map of Europe—(Muslin Mounted.)
Pelton's Outline Map of S. A. and Africa—(Muslin Mounted.)
Ink — Arnold's, Maynard & Noyes', Thaddeus David's, Carter's, Violet and Black Continental and Ingham's.
Steel Pens—Gillott's (genuine) Nos. 404 and 303. P. D. & S. No. 455. Easterbrook's Nos. 444, 333.

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